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McCrosky

COST CUTTING TOOLS

No. 9

McCrosky
COST CUTTING TOOLS

CATALOG NUMBER 9

McCrosky Tool Corporation

MEADVILLE, PENNSYLVANIA, U. S. A.

SALES OFFICES: **Cleveland, Detroit, Chicago, San Francisco**

Agencies in all principal manufacturing cities of United States and Canada

EXPORT AGENTS: Benjamin Whittaker, Inc., 21 State St., New York; Benjamin Whittaker, Ltd., 56 Ludgate Hill, London, E. C. 4

PRODUCTION

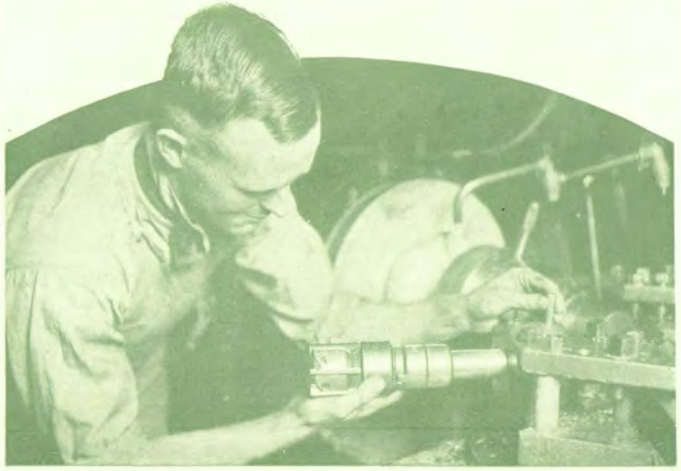
McCROSKY Engineers have one aim: to design tools that cut production costs and improve production results.

¶ This catalog of McCrosky Cost-Cutting Tools is a production expert in book form that is ready to work for your profit.

¶ It gives convincing evidence of the wide and varied range of McCrosky Service.

McCrosky-SUPER Adjustable Reamers

PAGES
3 TO 24
INCLUSIVE



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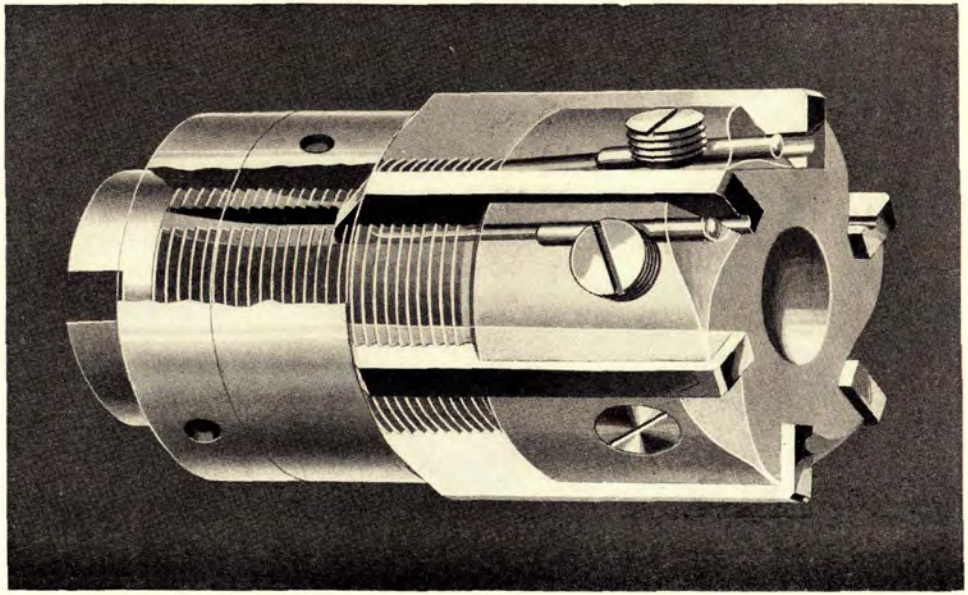
ACCURATE AND ECONOMICAL REAMING

Phantom View of McCrosky-SUPER Adjustable Reamer



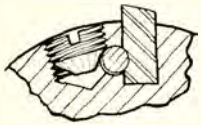
Strong and Simple in Construction—Accurate and Economical in Results

The McCrosky-SUPER Reamer is protected by strong patents with additional patents pending

Setting the Standard for Satisfactory Reaming

McCrosky-SUPER Adjustable Reamers possess exclusive features and advantages that enable them to set the standard for efficiency wherever accurate and economical reaming is required. The details of the McCrosky-SUPER design are clearly illustrated in the phantom view on the opposite page.

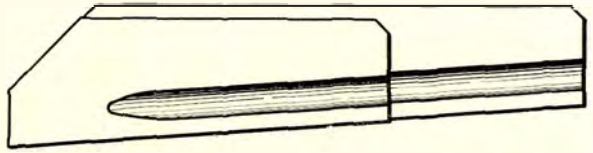
Simple and effective locking device. This patented McCrosky lock holds each blade in its slot by a key of drill rod, which is gripped by a hardened steel headless set screw that cannot break. This lock is completely effective and positive after many readjustments and after the installation of new blades in the original body.



McCrosky exclusive design for clearance and support. By this design the reamer body in front of the cutting edge of each blade has been relieved to provide ample space for chip clearance and free lubrication (see illustration on opposite page). This feature removes the possibility of chips clogging along the cutting edge of the blade. The clearance makes it possible to shorten the projection of the blades over the end of the reamer body. The design, therefore, provides rigid support practically to the end of the blade and eliminates excessive overhang of blades, a common feature in other designs of inserted blade reamers.

McCrosky-SUPER blades adjust forward to increase reamer diameter. The SUPER never loses its bottoming feature, and the cutting end of the blades is always slightly in advance of the reamer body.

Economy and long life. In many sizes the initial cost of McCrosky-SUPER Reamers with high speed blades is less than that of solid high speed reamers. Long, satisfactory service, however, is the real economy of McCrosky-SUPER Reamers. This line drawing com-



pares the actual original size of a No. 6 McCrosky-SUPER blade with the actual size of the same blade after it has been reground for the last possible adjustment. Stock available for radial regrinding plus that of the opposite blade gives a total adjustment range of .125 in. This range provides for from 10 to 20 radial regrindings for each set of blades. The large amount of stock at the end of the blade also provides for many additional sharpenings of the lead.

The body of a McCrosky-SUPER is hardened all over. The feature protects it from damage under the hardest usage and allows the life of the reamer to be renewed again and again by the installation of new blades in the original body. McCrosky-SUPER blades are easily inserted and a stock can be kept on hand for a relatively small investment. Only six sizes of blades are required to fit all sizes of McCrosky-SUPER shell and chucking reamers from 15-16 in. up to 14 in.

McCrosky-SUPER Adjustable Hand Reamer

PATENTED

Fig. 18

With Pilot Ground on Blades

Furnished Special to Order

Price List—Figure 18 McCrosky-SUPER Adjustable Hand Reamer

Blades are extra long and unevenly spaced. Square end of shank is hardened.

Guide sleeve is hardened and ground. It is held in any desired position on the shank by a headless set screw, or may be removed entirely in reaming short holes. In reaming long holes, the sleeve may be left loose, if preferred, so the Reamer shank will revolve in the sleeve and the sleeve remain stationary in the hole being reamed. Pilot can be ground on end of blades, special to order.

Intermediate sizes and millimeter sizes will be furnished at same price as next larger listed size. Sizes larger than 3" made special to order. **Wrenches extra, prices on page 19.**

Order by Fig. No. and state whether Carbon or H. S. blades are desired.

SIZE OF REAMER	LENGTH OVER ALL	DIA. SHANK	ADJUSTMENT OVERSIZE	CARBON BLADES	HIGH SPEED BLADES
15/16"	7 1/4"	39/64	.075	$8.80	$13.50
1	7 1/4	39/64	.075	9.20	14.10
1 1/16	7 3/4	39/64	.085	9.60	14.70
1 1/8	8	23/32	.085	10.00	15.30
1 3/16	8 3/8	3/4	.090	10.50	16.00
1 1/4	8 3/8	3/4	.090	11.00	16.70
1 5/16	9	7/8	.090	11.50	17.40
1 3/8	9	7/8	.090	12.00	18.20
1 7/16	9 1/2	15/16	.090	12.75	19.10
1 1/2	9 1/2	15/16	.090	13.50	20.00
1 9/16	9 7/8	1 1/16	.120	14.25	21.00
1 5/8	9 7/8	1 1/16	.120	15.00	22.00
1 11/16	10 1/4	1 3/16	.120	15.75	23.10
1 3/4	10 1/4	1 3/16	.120	16.50	24.20
1 13/16	10 3/4	1 3/16	.120	17.25	25.30
1 7/8	10 3/4	1 3/16	.120	18.00	26.40
1 15/16	11 1/4	1 5/16	.120	18.75	27.50
2 "	11 1/4"	1 5/16	.120	$19.50	$28.60
2 1/16	11 5/8	1 5/16	.120	20.25	29.70
2 1/8	11 5/8	1 5/16	.120	21.00	30.80
2 3/16	12 1/8	1 9/16	.120	21.75	32.00
2 1/4	12 1/8	1 9/16	.120	22.50	33.20
2 5/16	12 5/8	1 9/16	.120	23.25	34.40
2 3/8	12 5/8	1 9/16	.120	24.00	35.60
2 7/16	13	1 3/4	.120	24.75	36.80
2 1/2	13	1 3/4	.120	25.50	38.00
2 9/16	13 3/8	1 3/4	.120	26.50	39.25
2 5/8	13 3/8	1 3/4	.120	27.50	40.50
2 11/16	13 7/8	2	.120	28.50	41.75
2 3/4	13 7/8	2	.120	29.50	43.00
2 13/16	14 3/8	2 1/8	.120	30.50	44.25
2 7/8	14 3/8	2 1/8	.120	31.50	45.50
2 15/16	14 7/8	2 1/8	.120	32.50	47.00
3	14 7/8	2 1/8	.120	33.50	48.50

Only 6 sizes of blades required to fit all sizes of Fig. 18 Reamer. See Blade Price List on page 18.

McCrosky-SUPER Adjustable Chucking Reamer, High Speed

PATENTED

FIG. 20

FIG. 21

With Spiral Blades Special to Order

Price List—Figure 20 and 21 McCrosky-SUPER Reamers, High Speed

Shank and body of reamer are made from one solid piece of steel, giving great strength. Reamer body is hardened. Blades are unevenely spaced to prevent chattering.

Intermediate sizes and millimeter sizes furnished at price of next larger listed size. Sizes larger than 3″ made special to order, although the Fig. 24 reamer with arbor is recommended in sizes over 3″.

If preferred these reamers will be made special to order with carbon steel blades.

Order by Figure Number. Wrenches extra. Prices on page 19.

SIZE OF REAMER	LENGTH OVER ALL	SHANK DIA. FIG. 20	FIG. 21 SHANK MORSE TAPER	ADJUSTMENT OVERSIZE	PRICE FIG. 20 REAMER	PRICE FIG. 21 REAMER
15/16″	10″	39/64	No. 3	.075	$11.50	$12.20
1″	10	39/64	No. 3	.075	12.00	12.80
1 1/16	10	39/64	No. 3	.085	12.50	13.40
1 1/8	10	39/64	No. 3	.085	13.00	14.00
1 3/16	11	39/64	No. 3	.090	13.50	14.60
1 1/4	11	39/64	No. 3	.090	14.00	15.20
1 5/16	12	39/64	No. 3	.090	14.50	15.80
1 3/8	12	39/64	No. 3	.090	15.00	16.40
1 7/16	12	39/64	No. 3	.090	15.60	17.00
1 1/2	12	39/64	No. 3	.090	16.20	17.60
1 9/16	13	1 1/16	No 3	.120	16.80	18.20
1 5/8	13	1 1/16	No. 3	.120	17.40	18.80
1 11/16	14	1 1/16	No. 3	.120	18.00	19.40
1 3/4	14	1 1/16	No. 3	.120	18.60	20.00
1 13/16	14	1 1/16	No. 3	.120	19.20	20.80
1 7/8	14	1 1/16	No. 3	.120	19.80	21.60
1 15/16	14½	1 5/16	No. 4	.120	20.40	22.40
2″	14½″	1 5/16	No. 4	.120	$21.00	$23.20
2 1/16	15	1 5/16	No. 4	.120	21.60	24.00
2 1/8	15	1 5/16	No. 4	.120	22.20	24.80
2 3/16	15	1 5/16	No. 4	.120	22.80	25.60
2 1/4	15	1 5/16	No. 4	.120	23.40	26.40
2 5/16	15	1 5/16	No. 4	.120	24.00	27.20
2 3/8	15	1 5/16	No. 4	.120	24.60	28.00
2 7/16	15½	1 3/4	No 5	.120	25.30	28.80
2 1/2	15½	1 3/4	No. 5	.120	26.00	29.60
2 9/16	15½	1 3/4	No. 5	.120	27.00	31.50
2 5/8	15½	1 3/4	No 5	.120	28.50	32.75
2 11/16	15½	2	No. 5	.120	30.00	34.00
2 3/4	15½	2	No. 5	.120	31.50	35.50
2 13/16	16	2 1/8	No. 5	.120	33.00	37.00
2 7/8	16	2 1/8	No. 5	.120	34.50	38.50
2 15/16	16	2 1/8	No. 5	.120	36.50	40.00
3″	16	2 1/8	No. 5	.120	38.00	41.50

As shown in small illustration on opposite page McCrosky-SUPER Chucking Reamers can be furnished with spiral blades, either left-hand or right-hand as desired. Made special to order only.

Only 6 sizes of blades required to fit all sizes of Fig. 20 and 21 Reamers. See Blade Price List on page 18.

McCrosky-SUPER Adjustable Shell Reamer

PATENTED

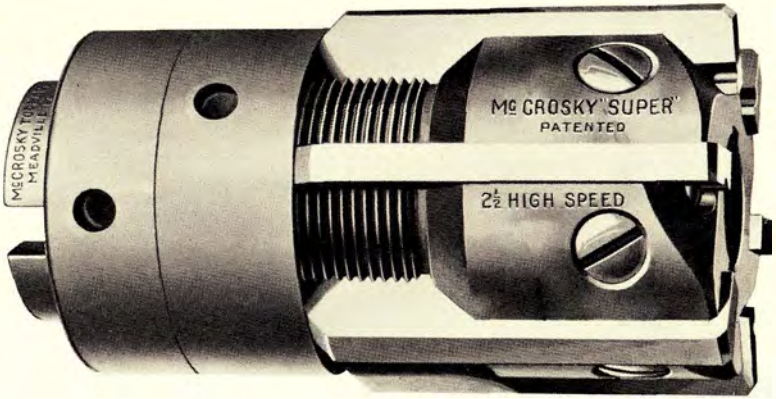
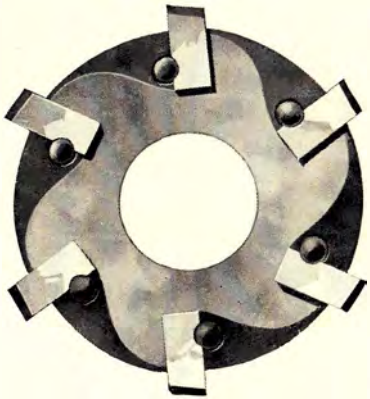
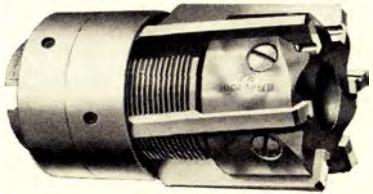


Fig. 24



Working-End of SUPER

With Spiral Blades



Special to Order

Price List—Figure 24 McCrosky-SUPER Shell Reamer, High Speed

Fig. 24 Reamers furnished regularly with taper holes, taper 1/8" to 1'. Sizes over 6" made special to order. Intermediate sizes and m-m sizes take price of next larger listed size. Carbon Blades furnished special to order. Reamer body is hardened. **Order by Figure Number. Wrenches extra, prices on page 19.**

Size of Reamer	Price Each	Length Over All	Dia. Hole large end	Fits Arbor Size	Size of Reamer	Price Each	Length Over All	Dia. Hole large end	Fits Arbor Size	Size of Reamer	Price Each	Length Over All	Dia. Hole large end	Fits Arbor Size
1 3/16"	$12.00	2 3/4"	3/8"	70	2 13/16	$27.50	4 1/2	1 1/4"	77	4 7/16"	$54.65	4 3/16	2"	82
1 1/4	12.50	2 13/16	3/8	70	2 7/8	28.50	4 1/2	1 1/4	77	4 1/2	55.70	4 3/16	2	82
1 5/16	13.00	2 13/16	1/2	71	2 15/16	29.50	4 9/16	1 3/8	78	4 9/16	56.75	4 3/16	2	82
1 3/8	13.50	2 13/16	1/2	71	3	30.50	4 9/16	1 3/8	78	4 5/8	57.80	4 3/16	2	82
1 7/16	14.00	3 1/16	1/2	71	3 1/16	31.55	4 1/2	1 3/8	78	4 11/16	58.85	4 1/4	2 1/4	83
1 1/2	14.50	3 1/16	1/2	71	3 1/8	32.60	4 1/2	1 3/8	78	4 3/4	59.90	4 1/4	2 1/4	83
1 9/16	15.00	3 1/8	5/8	72	3 3/16	33.65	4 9/16	1 3/8	78	4 13/16	60.95	4 5/16	2 1/4	83
1 5/8	15.50	3 1/8	5/8	72	3 1/4	34.70	4 9/16	1 3/8	78	4 7/8	62.00	4 5/16	2 1/4	83
1 11/16	16.00	3 1/8	5/8	72	3 5/16	35.75	4 11/16	1 1/2	79	4 15/16	63.05	4 1/2	2 1/4	83
1 3/4	16.50	3 1/8	5/8	72	3 3/8	36.80	4 11/16	1 1/2	79	5	64.10	4 1/4	2 1/4	83
1 13/16	17.00	3 1/2	5/8	72	3 7/16	37.85	4 9/16	1 1/2	79	5 1/16	65.15	4 1/4	2 1/4	83
1 7/8	17.50	3 1/2	5/8	72	3 1/2	38.90	4 9/16	1 1/2	79	5 1/8	66.20	4 1/4	2 1/4	83
1 15/16	18.00	3 5/8	3/4	73	3 9/16	39.95	4 5/8	1 1/2	79	5 3/16	67.25	4 3/8	2 1/4	83
2	18.50	3 5/8	3/4	73	3 5/8	41.00	4 5/8	1 1/2	79	5 1/4	68.30	4 3/8	2 1/4	83
2 1/16	19.00	4 1/16	3/4	73	3 11/16	42.05	4 3/16	1 5/8	80	5 5/16	69.35	4 1/4	2 1/2	84
2 1/8	19.50	4 1/16	3/4	73	3 3/4	43.10	4 3/16	1 5/8	80	5 3/8	70.40	4 1/4	2 1/2	84
2 3/16	20.00	4	3/4	73	3 13/16	44.15	4 1/16	1 5/8	81	5 7/16	71.45	4 1/4	2 1/2	84
2 1/4	20.50	4	3/4	73	3 7/8	45.20	4 1/16	1 7/8	81	5 1/2	72.50	4 1/4	2 1/2	84
2 5/16	21.00	4 1/16	7/8	74	3 15/16	46.25	4 1/8	1 7/8	81	5 9/16	73.55	4 3/8	2 1/2	84
2 3/8	21.75	4 1/16	7/8	74	4	47.30	4 1/8	1 7/8	81	5 5/8	74.60	4 3/8	2 1/2	84
2 7/16	22.50	4 1/8	1	75	4 1/16	48.35	4 3/16	2	82	5 11/16	75.65	4 1/4	2 1/2	84
2 1/2	23.25	4 1/8	1	75	4 1/8	49.40	4 3/16	2	82	5 3/4	76.70	4 1/4	2 1/2	84
2 9/16	24.00	4 7/16	1	75	4 3/16	50.45	4 1/8	2	82	5 13/16	77.75	4 1/4	2 1/2	84
2 5/8	24.75	4 7/16	1	75	4 1/4	51.50	4 1/8	2	82	5 7/8	78.80	4 1/4	2 1/2	84
2 11/16	25.50	4 7/16	1 1/8	76	4 5/16	52.55	4 1/8	2	82	5 15/16	79.85	4 3/8	2 1/2	84
2 3/4	26.50	4 7/16	1 1/8	76	4 3/8	53.60	4 1/8	2	82	6	80.90	4 3/8	2 1/2	84

Sizes up to 1½ gize oversize adjustment of about .085; sizes from 1 9/16 to 1¾, .090; sizes from 1 13/16 to 2⅜, .120; and sizes from 2 13/16 up to 6, .125. ¶Fig. 20 and 21 McCrosky-SUPER Reamers are recommended as preferable to Fig. 24 in small sizes where heavy duty work is being done. ¶As shown in small illustration on opposite page, McCrosky-SUPER Shell Reamers can be furnished with spiral blades, either left-hand or right-hand as desired. Made special to order only. ¶**Only 6 sizes of blades required to fit all sizes Fig. 24 Reamers. See Blade Price List on page 18; Arbor Price List on page 17.**

McCrosky-SUPER Adjustable Shell Reamer for Line-Reaming

PATENTED

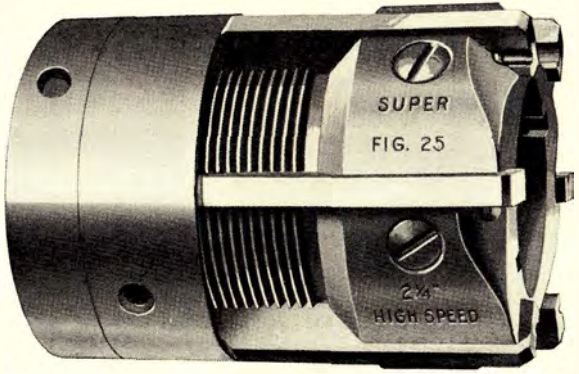
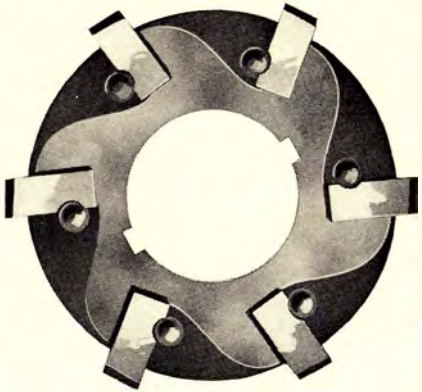


Fig. 25



Extra Large Hole for Large, Rigid Bar

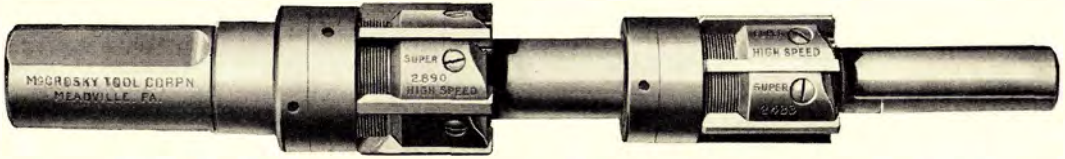


Fig. 25 Reamers mounted on Line-Reaming Bar

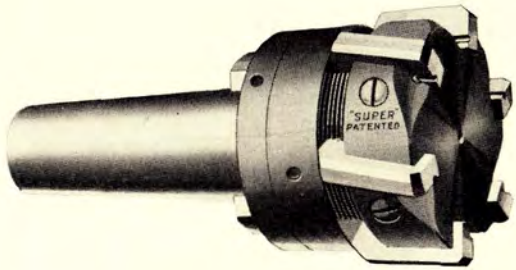
Price List—Figure 25 McCrosky-SUPER Shell Reamer, High Speed

Fig. 25 Reamers combine the standard McCrosky-SUPER design with an extra large hole (see front-end view on opposite page), which makes possible the use of a large rigid reaming bar on which from one to a half dozen reamers can be mounted. Unusually accurate results on a great variety of line reaming have proved the value of this feature. Reamer body is hardened. Fig. 25 with spiral blades can be furnished special to order.

Order by Figure Number. For Blade Price List see page 18. Wrenches extra, prices on page 19.

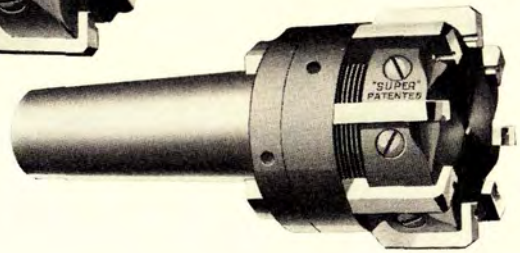
SIZE OF REAMER	PRICE EACH	LENGTH OVER ALL	DIA. AND LENGTH OF HOLE	KEYWAY
1 1/8"	$11.50	2 1/8	1/2 x 2 3/32	3/32 x 3/64 No. 4 Woodruff Key
1 3/16	12.00	2 1/8	9/16 x 2 3/32	
1 1/4	12.50	2 3/16	5/8 x 2 1/8	
1 5/16	13.00	2 3/16	11/16 x 2 5/32	
1 3/8	13.50	2 1/4	11/16 x 2 3/16	
1 7/16	14.00	2 3/16	3/4 x 2 5/32	
1 1/2	14.50	2 3/16	3/4 x 2 5/32	
1 9/16	15.00	2 7/16	13/16 x 2 5/8	
1 5/8	15.50	2 7/16	13/16 x 2 3/8	
1 11/16	16.00	2 7/16	7/8 x 2 3/8	
1 3/4	16.50	2 7/16	7/8 x 2 3/8	
1 13/16	17.00	2 1/2	15/16 x 2 7/16	1/8 x 1/16 No. 5 Woodruff Key
1 7/8	17.50	2 1/2	15/16 x 2 7/16	
1 15/16	18.00	2 5/8	1 x 2 9/16	
2	18.50	2 5/8	1 x 2 9/16	
2 1/16	19.00	2 11/16	1 1/16 x 2 5/8	
2 1/8	19.50	2 11/16	1 1/16 x 2 5/8	
2 3/16	20.00	2 5/8	1 1/8 x 2 9/16	
2 1/4	20.50	2 5/8	1 1/8 x 2 9/16	
2 5/16	21.00	2 15/16	1 3/16 x 2 7/8	
2 3/8	21.75	2 15/16	1 3/16 x 2 7/8	
2 7/16	22.50	2 7/8	1 1/4 x 2 13/16	3/16 x 3/32 No. 9 Woodruff Key
2 1/2	23.25	2 7/8	1 1/4 x 2 13/16	
2 9/16	24.00	2 15/16	1 5/16 x 2 7/8	
2 5/8	24.75	2 15/16	1 5/16 x 2 7/8	
2 11/16	25.50	2 7/8	1 3/8 x 2 13/16	
2 3/4	26.50	2 7/8	1 3/8 x 2 13/16	
2 13/16"	$27.50	2 15/16	1 7/16 x 2 13/16	
2 7/8	28.50	2 15/16	1 7/16 x 2 13/16	
2 15/16	29.50	3	1 1/2 x 2 7/8	
3	30.50	3	1 1/2 x 2 7/8	
3 1/16	31.55	2 15/16	1 9/16 x 2 1/16	
3 1/8	32.60	2 15/16	1 9/16 x 2 13/16	
3 3/16	33.65	3	1 5/8 x 2 7/8	
3 1/4	34.70	3	1 5/8 x 2 7/8	
3 5/16	35.75	3 1/16	1 11/16 x 2 15/16	
3 3/8	36.80	3 1/16	1 11/16 x 2 15/16	
3 7/16	37.85	2 15/16	1 3/4 x 2 13/16	
3 1/2	38.90	2 15/16	1 3/4 x 2 13/16	
3 9/16	39.95	3	1 13/16 x 2 7/8	
3 5/8	41.00	3	1 13/16 x 2 7/8	
3 11/16	42.05	3 1/16	1 7/8 x 2 15/16	
3 3/4	43.10	3 1/16	1 7/8 x 2 15/16	
3 13/16	44.15	2 15/16	1 15/16 x 2 13/16	
3 7/8	45.20	2 15/16	1 15/16 x 2 13/16	
3 15/16	46.25	3	2 x 2 7/8	
4	47.30	3	2 x 2 7/8	
4 1/16	48.35	3 1/16	2 x 2 15/16	
4 1/8	49.40	3 1/16	2 x 2 15/16	
4 3/16	50.45	2 15/16	2 x 2 13/16	
4 1/4	51.50	2 15/16	2 x 2 13/16	
4 5/16	52.55	3	2 x 2 7/8	
4 3/8	53.60	3	2 x 2 7/8	
4 7/16	54.65	3 1/16	2 1/16 x 2 15/16	3/8 x 3/16 Size A Woodruff Key
4 1/2"	$55.70	3 1/16	2 1/16 x 2 15/16	
4 9/16	56.75	2 15/16	2 1/8 x 2 13/16	
4 5/8	57.80	2 15/16	2 1/8 x 2 13/16	
4 11/16	58.85	3	2 1/8 x 2 7/8	
4 3/4	59.90	3	2 1/8 x 2 7/8	
4 13/16	60.95	3 1/16	2 1/4 x 2 15/16	
4 7/8	62.00	3 1/16	2 1/4 x 2 15/16	
4 15/16	63.05	2 15/16	2 1/2 x 2 13/16	
5	64.10	2 15/16	2 1/2 x 2 13/16	
5 1/16	65.15	3	2 1/2 x 2 7/8	
5 1/8	66.20	3	2 1/2 x 2 7/8	
5 3/16	67.25	3 1/16	2 1/2 x 2 15/16	
5 1/4	68.30	3 1/16	2 1/2 x 2 15/16	
5 5/16	69.35	2 15/16	2 1/2 x 2 13/16	
5 3/8	70.40	2 15/16	2 1/2 x 2 13/16	
5 7/16	71.45	3	2 3/4 x 2 7/8	
5 1/2	72.50	3	2 3/4 x 2 7/8	
5 9/16	73.55	3 1/16	2 3/4 x 2 15/16	
5 5/8	74.60	3 1/16	2 3/4 x 2 15/16	
5 11/16	75.65	2 15/16	2 3/4 x 2 13/16	
5 3/4	76.70	2 15/16	2 3/4 x 2 13/16	
5 13/16	77.75	3	2 3/4 x 2 7/8	
5 7/8	78.80	3	2 3/4 x 2 7/8	
5 15/16	79.85	3 1/16	2 3/4 x 2 15/16	
6	80.90	3 1/16	2 3/4 x 2 15/16	5/16 x 5/32 Size D Woodruff Key

McCrosky-SUPER Cylinder Reaming Set



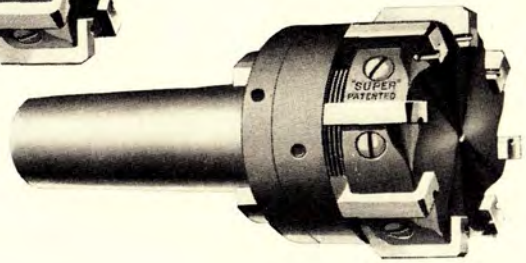
Rougher

Sturdy tool for heavy duty of first cut



Semi-Finisher

Prepares hole for Finisher where unusually accurate results are required



Finisher

Produces accurate, smoothly finished holes

Accurate, Smoothly Finished Cylinders Economically Produced

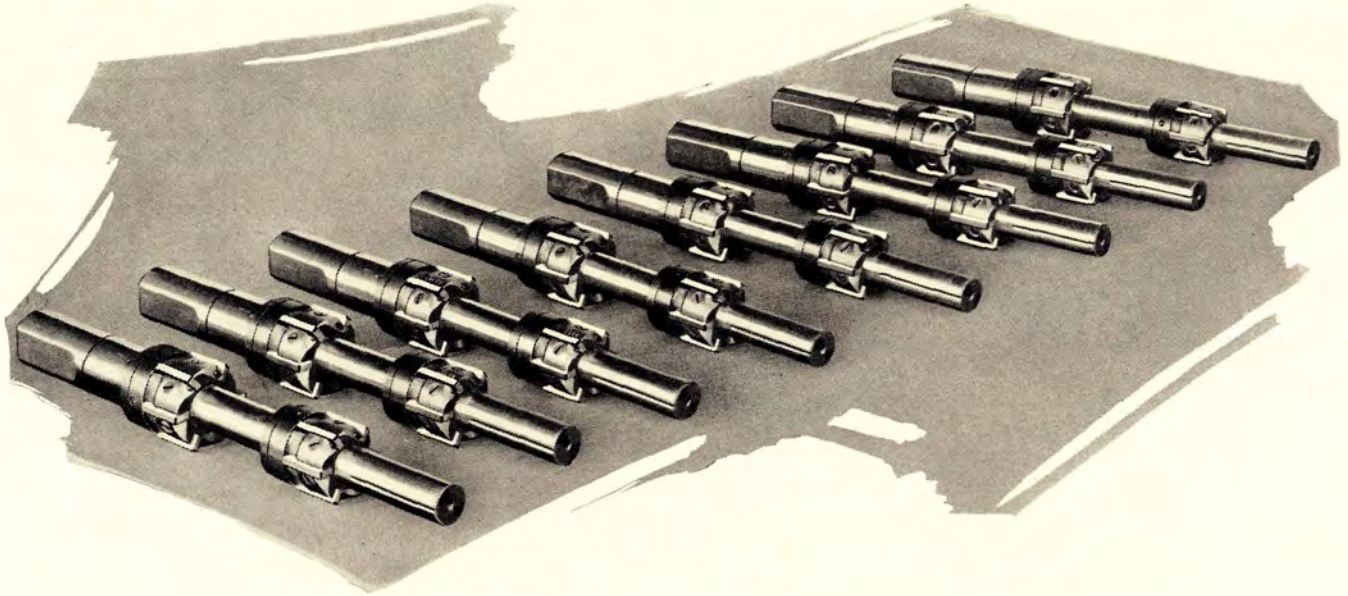
McCrosky-SUPER Cylinder Reamers are an answer to the great need among motor manufacturers for a set of high grade reamers that can economically produce accurately reamed, smoothly finished holes. They represent the standard McCrosky-SUPER design skillfully adapted to the particular requirements of cylinder reaming. Satisfactory performance is assured by the long and successful experience of McCrosky engineers in applying this time-tested design to specific reaming problems.

McCrosky-SUPER Cylinder Reamers have all the advantages of standard McCrosky-SUPER Reamers. Like the SUPER Chucking Reamer the shank and body of these Cylinder Reamers are made of one solid piece of steel. The body of the reamer is hardened all over. **The McCrosky-SUPER Design for Clearance and Support** (note how body is relieved in front of each blade) removes the possibility of chips clogging along the cutting edge. This feature also eliminates the excessive overhang of blades beyond the reamer body and provides rigid support behind the cutting edge practically to the end of the blade. **The patented McCrosky-SUPER** lock is in front of the cutting edge and holds the blade rigidly against the back and bottom of the slot, the natural direction of the cutting thrust. The experience of many years with this patented locking device enables us to guarantee the rigidity of blades held by this effective method. The blades of McCrosky-SUPER Cylinder Reamers are made extra heavy for heavy duty. An unusually large range of adjustment provides for many regrindings and extra long life.

A complete set of McCrosky-SUPER Cylinder Reamers includes a Rougher, a Semi-Finisher, and a Finisher. The Rougher is made particularly sturdy in construction for handling the heavy duty of the first cut. The blades in this unit are right-hand spiral. This angle insures positive cutting action for heavy duty. The Semi-Finisher and Finisher are sturdy tools exactly the same in construction except as to size. The Semi-Finisher is of course slightly smaller in diameter. Very satisfactory results have been secured on certain jobs by use of the Rougher and Finisher alone. Wherever unusually accurate results are required, however, it has always been found advisable to use the Semi-Finisher to better prepare the hole for the Finisher.

McCrosky-SUPER Cylinder Reamers are made special to order only. The Rougher is always furnished with right-hand spiral blades. The Semi-Finisher and Finisher are ordinarily furnished with straight blades, but they can be made with left-hand spiral blades if desired. The shanks of all three tools are ordinarily furnished without tang and with special nose drive to fit spindle. They can be furnished otherwise if desired. In writing for quotations on McCrosky-SUPER Cylinder Reamers please specify size of reamer and type of machine on which reamer is to be used. Specifications and sketches of spindle dimensions and requirements will also be of great assistance in quoting.

McCrosky-SUPER Adjustable Reamers



Shipment of Figure 25 McCrosky-SUPER Reamers Mounted on Line-Reaming Bars

Arbors for Fig. 24 McCrosky-SUPER Shell Reamers

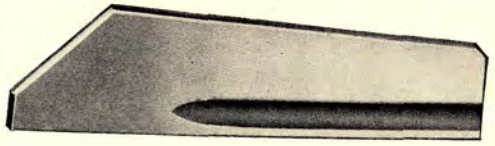
Fig. M 40

Fig. M 41

Order by Figure Number, and give Size Number of arbor desired.

Size Number	Fitting Reamer Sizes	Price Each Fig. M 40	Price Each Fig. M 41	Length Over All	Dia. Hole in Reamer Large End	Width Driving Key	Dia. Shank Fig. M 40	Morse Taper Shank Fig. M 41
70	$1\frac{3}{16}$" to $1\frac{1}{4}$"	$4.80	$5.80	10"	.375"	.360"	$\frac{3}{4}$"	No. 2
71	$1\frac{5}{16}$ to $1\frac{1}{2}$	5.30	6.30	10	.500	.240	1	No. 3
72	$1\frac{9}{16}$ to $1\frac{5}{8}$	5.80	6.80	11	.625	.240	1	No. 3
73	$1\frac{13}{16}$ to $2\frac{1}{4}$	6.40	7.50	12	.750	.240	$1\frac{1}{4}$	No. 4
74	$2\frac{1}{16}$ to $2\frac{3}{8}$	7.00	8.10	13	.875	.240	$1\frac{1}{4}$	No. 4
75	$2\frac{7}{16}$ to $2\frac{5}{8}$	7.60	8.70	$13\frac{1}{2}$	1.000	.300	$1\frac{1}{4}$	No. 4
76	$2\frac{11}{16}$ to $2\frac{3}{4}$	8.20	9.40	14	1.125	.360	$1\frac{5}{8}$	No. 4
77	$2\frac{13}{16}$ to $2\frac{7}{8}$	9.00	10.20	$14\frac{1}{2}$	1.250	.360	$1\frac{5}{8}$	No. 5
78	$2\frac{15}{16}$ to $3\frac{1}{8}$	9.60	10.90	15	1.375	.360	$1\frac{5}{8}$	No. 5
79	$3\frac{5}{16}$ to $3\frac{3}{8}$	10.20	11.60	$15\frac{1}{2}$	1.500	.415	$1\frac{3}{4}$	No. 5
80	$3\frac{11}{16}$ to $3\frac{3}{4}$	10.80	12.20	16	1.625	.480	$1\frac{7}{8}$	No. 5
81	$3\frac{13}{16}$ to 4	11.40	13.00	$16\frac{1}{2}$	1.875	.480	$2\frac{1}{8}$	No. 5
82	$4\frac{1}{16}$ to $4\frac{3}{8}$	12.00	13.75	17	2.000	.605	$2\frac{1}{4}$	No. 5
83	$4\frac{11}{16}$ to $5\frac{1}{4}$	13.00	14.75	$17\frac{1}{2}$	2.250	.730	$2\frac{3}{4}$	No. 5
84	$5\frac{5}{16}$ to 6	14.50	16.50	18	2.500	.730	$2\frac{3}{4}$	No. 5

Blades for McCrosky-SUPER Adjustable Reamers



McCrosky-SUPER Blades are packed in boxes, one set of blades in a box. The Blade Number and the sizes of reamers which it fits are plainly printed on each box.

In ordering specify Size Number of blades, quantity desired, and whether High Speed or Carbon blades required. Carbon Steel Blades for Fig. 20, 21, 24, and 25 Reamers can be furnished special to order.

BLADES FOR FIG. 18 REAMERS

Size No.	Fitting Reamers of Following Diameters	No. in Set	Price per Set High Speed	Price per Set Carbon Steel
7	$\frac{15}{16}$" to 1"	6	$ 6.75	$ 3.75
8	$1\frac{1}{16}$ to $1\frac{1}{4}$	6	7.50	4.00
9	$1\frac{5}{16}$ to $1\frac{1}{2}$	6	8.75	4.50
10	$1\frac{9}{16}$ to $1\frac{7}{8}$	6	10.50	5.25
10	$1\frac{15}{16}$ to $2\frac{1}{8}$	8	14.00	7.00
11	$2\frac{3}{16}$ to $2\frac{3}{8}$	8	16.60	8.75
12	$2\frac{7}{16}$ to $2\frac{5}{8}$	8	18.00	10.00
12	$2\frac{11}{16}$ to 3	10	22.50	12.50

BLADES FOR FIGS. 20, 21 AND 24 REAMERS

Size No.	Fit Fig. 24 Reamers Following Diameters	Fit Fig. 20 & 21 Reamers Following Diams.	No. in Set	Price per Set High Speed
1	$1\frac{3}{16}$" to $1\frac{1}{4}$	$\frac{15}{16}$" to 1"	6	$ 5.50
2	$1\frac{5}{16}$ to $1\frac{3}{8}$	$1\frac{1}{16}$ to $1\frac{1}{4}$	6	6.25
3	$1\frac{7}{16}$ to $1\frac{3}{4}$	$1\frac{5}{16}$ to $1\frac{1}{2}$	6	7.50
4	$1\frac{13}{16}$ to 2	$1\frac{9}{16}$ to 2	6	9.00
5	$2\frac{1}{16}$ to $2\frac{1}{2}$	$2\frac{1}{16}$ to $2\frac{3}{8}$	6	10.50
6	$2\frac{9}{16}$ to $3\frac{1}{8}$	$2\frac{7}{16}$ to 3	6	12.50
6	$3\frac{1}{16}$ to $4\frac{1}{8}$		8	16.60
6	$4\frac{3}{16}$ to $5\frac{1}{4}$		10	20.80
6	$5\frac{5}{16}$ to 6		12	25.00

BLADES FOR FIG. 25 REAMERS

Size No.	Fitting Reamers of Following Diameters	No. in Set	Price per Set High Speed
2-B	$1\frac{1}{8}$" to $1\frac{1}{2}$"	6	$ 6.00
3-A	$1\frac{9}{16}$ to $1\frac{7}{8}$	6	7.50
4-A	$1\frac{15}{16}$ to $2\frac{1}{4}$	6	9.00
5-A	$2\frac{5}{16}$ to $2\frac{3}{4}$	6	10.50
6-A	$2\frac{13}{16}$ to $3\frac{1}{8}$	6	12.50
6-A	$3\frac{3}{16}$ to $4\frac{1}{8}$	8	16.60
6-A	$4\frac{3}{16}$ to $5\frac{1}{4}$	10	20.80
6-A	$5\frac{5}{16}$ to 6	12	25.00

Parts for McCrosky-SUPER Reamers

SCREWS

In ordering screws specify size number

Price List SUPER Screws

SIZE NO.	THREAD	FITTING FOLLOWING REAMERS				PRICE PER DOZEN
		Fig. 18	Figs. 20 & 21	Fig. 24	Fig. 25	
1	$\frac{7}{32}$—32	$\frac{15}{16}$ to $1\frac{1}{4}$	$\frac{15}{16}$ to $1\frac{1}{4}$	$1\frac{3}{16}$ to $1\frac{3}{8}$	$1\frac{1}{8}$ to $1\frac{1}{2}$	$ .50
2	$\frac{1}{4}$—32	$1\frac{5}{16}$ to $1\frac{1}{2}$	$1\frac{5}{16}$ to $1\frac{1}{2}$	$1\frac{7}{16}$ to $1\frac{3}{4}$	$1\frac{9}{16}$ to $1\frac{7}{8}$	.55
3	$\frac{5}{16}$—28	$1\frac{9}{16}$ to $1\frac{7}{8}$	$1\frac{9}{16}$ to 2	$1\frac{13}{16}$ to 2	$1\frac{15}{16}$ to $2\frac{1}{4}$	.60
4	$\frac{13}{32}$—26		$2\frac{1}{16}$ to $2\frac{3}{8}$	$2\frac{1}{16}$ to $2\frac{1}{2}$	$2\frac{5}{16}$ to $2\frac{3}{4}$	.65
5	$\frac{15}{32}$—24		$2\frac{7}{16}$ to 3	$2\frac{9}{16}$ to 6	$2\frac{13}{16}$ to 6	.70
6	$\frac{1}{4}$—32	$1\frac{15}{16}$ to $2\frac{1}{8}$				.55
7	$\frac{1}{4}$—32	$2\frac{1}{16}$ to $2\frac{1}{4}$				.55
8	$\frac{5}{16}$—28	$2\frac{5}{16}$ to $2\frac{3}{8}$				.60
9	$\frac{5}{16}$—28	$2\frac{7}{16}$ to 3				.60

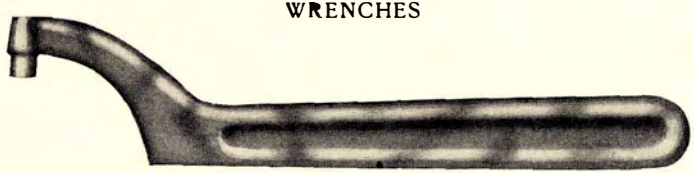
PINS

In ordering pins specify size number

Price List SUPER Pins

SIZE NO.	DIAMETER	FITTING FOLLOWING REAMERS				PRICE PER DOZEN
		Fig. 18	Figs. 20 & 21	Fig. 24	Fig. 25	
1	$\frac{5}{64}$	$\frac{15}{16}$ to 1	$\frac{15}{16}$ to 1	$1\frac{3}{16}$ to $1\frac{1}{4}$	$1\frac{1}{8}$ to $1\frac{1}{2}$	$ .30
2	$\frac{3}{32}$	$1\frac{1}{16}$ to $1\frac{1}{4}$	$1\frac{1}{16}$ to $1\frac{1}{4}$	$1\frac{5}{16}$ to $1\frac{3}{8}$		.35
3	$\frac{1}{8}$	$1\frac{5}{16}$ to $2\frac{1}{8}$	$1\frac{5}{16}$ to 2	$1\frac{7}{16}$ to 2	$1\frac{9}{16}$ to $2\frac{1}{4}$	.40
4	$\frac{5}{32}$	$2\frac{3}{16}$ to $2\frac{3}{8}$	$2\frac{1}{16}$ to $2\frac{3}{8}$	$2\frac{1}{16}$ to $2\frac{1}{2}$	$2\frac{5}{16}$ to $2\frac{3}{4}$	.45
5	$\frac{3}{16}$	$2\frac{7}{16}$ to 3	$2\frac{7}{16}$ to 3	$2\frac{9}{16}$ to 6	$2\frac{13}{16}$ to 6	.50

WRENCHES



In ordering wrenches specify wrench number and diameter of reamer

Price List Wrenches

WRENCH NO.	SIZE OF REAMER	DIAMETER OF COLLAR	PRICE EACH
106	$\frac{15}{16}$ to $1\frac{1}{16}$"	$\frac{7}{8}$	$ .36
112	$1\frac{1}{8}$	$1\frac{1}{16}$	.38
125	$1\frac{3}{16}$ to $1\frac{1}{4}$	$1\frac{1}{8}$	.38
137	$1\frac{5}{16}$ to $1\frac{3}{8}$	$1\frac{1}{4}$	.38
150	$1\frac{7}{16}$ to $1\frac{1}{2}$	$1\frac{3}{8}$	.40
162	$1\frac{9}{16}$ to $1\frac{5}{8}$	$1\frac{1}{2}$	.42
187	$1\frac{11}{16}$ to $1\frac{7}{8}$	$1\frac{5}{8}$	.42
212	$1\frac{15}{16}$ to $2\frac{1}{8}$	$1\frac{7}{8}$	.44
237	$2\frac{3}{16}$ to $2\frac{3}{8}$	$2\frac{1}{8}$	.46
262	$2\frac{7}{16}$ to $2\frac{5}{8}$	$2\frac{3}{8}$	.48
275	$2\frac{11}{16}$ to $2\frac{3}{4}$	$2\frac{5}{8}$	.52
300	$2\frac{13}{16}$ to 3	$2\frac{3}{4}$	.52
337	$3\frac{1}{16}$ to $3\frac{3}{8}$	3	.56
375	$3\frac{7}{16}$ to $3\frac{3}{4}$	$3\frac{3}{8}$	.60
412	$3\frac{13}{16}$ to $4\frac{1}{8}$	$3\frac{3}{4}$	.68
450	$4\frac{3}{16}$ to $4\frac{1}{2}$	$4\frac{1}{16}$	.72
487	$4\frac{9}{16}$ to $4\frac{7}{8}$	$4\frac{1}{2}$	.72
525	$4\frac{15}{16}$ to $5\frac{1}{4}$	$4\frac{13}{16}$	.96
562	$5\frac{5}{16}$ to $5\frac{5}{8}$	$5\frac{3}{16}$	1.10
600	$5\frac{11}{16}$ to 6	$5\frac{9}{16}$	1.30

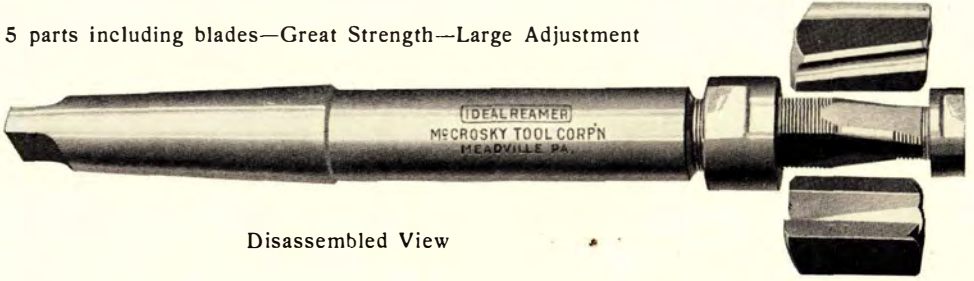
IDEAL Adjustable High Speed Chucking Reamer

Especially recommended for reaming tough fibrous metals

Fig. 13

Fig. 14

Only 5 parts including blades—Great Strength—Large Adjustment



Disassembled View

Price List—IDEAL Reamers, High Speed

The four short left-hand spiral flutes, milled in two solid blocks of High Speed steel, make a free cutting tool which does not bind or heat, and provides large space for chips and lubricant. Adjustment is effected by loosening rear collar and tightening front collar. This forces the two halves of the reamer head up the inclined surfaces of the arbor. The adjustment feature is designed only to compensate for wear. After adjustment the reamer should not be used without regrinding.

Fig. 14 **IDEAL** Reamer is furnished with No. 3 Morse Taper Shank in all sizes from 7/8 to 1 1/16, No. 4 from 1 3/4 to 2 7/16, and No. 5 from 2 1/2 up. Other Morse Taper Shanks will be furnished special to order at an additional charge. **Order by Figure Number.**

Size Reamer inches	Length Over All inches	Fig. 13 Reamer each	Fig. 14 Reamer each	Extra Blades per set	Size Reamer inches	Length Over All inches	Fig. 13 Reamer each	Fig. 14 Reamer each	Extra Blades per set
7/8	9	$10.50	$11.80	$ 6.50	2	14	$26.90	$29.40	$16.50
15/16	9	11.35	12.70	7.00	2 1/16	14	28.20	30.80	17.25
1	10	12.20	13.60	7.50	2 1/8	14	29.60	32.30	18.00
1 1/16	10	13.05	14.50	8.00	2 3/16	14	32.00	35.00	19.00
1 1/8	10	13.90	15.40	8.50	2 1/4	15	33.50	36.75	20.00
1 3/16	10	14.75	16.30	9.00	2 5/16	15	35.00	38.50	21.00
1 1/4	11 1/2	15.60	17.20	9.50	2 3/8	15	36.50	40.25	22.00
1 5/16	11 1/2	16.55	18.10	10.00	2 7/16	15	38.00	42.00	23.25
1 3/8	11 1/2	17.40	19.00	10.50	2 1/2	15 1/2	39.75	43.90	24.50
1 7/16	11 1/2	18.25	19.90	11.00	2 9/16	15 1/2	41.50	45.90	25.75
1 1/2	13	19.10	20.80	11.50	2 5/8	15 1/2	43.25	48.30	27.00
1 9/16	13	19.95	21.70	12.00	2 11/16	15 1/2	45.00	50.70	28.25
1 5/8	13	20.80	22.60	12.50	2 3/4	15 1/2	47.00	53.10	29.50
1 11/16	13	21.65	23.50	13.00	2 13/16	15 1/2	49.00	55.50	30.75
1 3/4	13 1/2	22.50	24.40	13.60	2 7/8	15 1/2	51.00	58.00	32.00
1 13/16	13 1/2	23.50	25.50	14.30	2 15/16	15 1/2	53.00	60.50	33.50
1 7/8	13 1/2	24.50	26.75	15.00	3	15 1/2	55.50	63.00	35.00
1 15/16	13 1/2	25.70	28.00	15.75					

Intermediate sizes and millimeter sizes will be furnished at price of next larger listed size. Sizes larger than 3" made special to order.

A 2" **IDEAL** Reamer has 3-32" adjustment oversize, and other sizes in proportion. Thus one **IDEAL** will ream more holes than a dozen solid reamers, and then a new set of blades makes the reamer as good as new.

1908 Model McCrosky Reamers

Fig. 2

Fig. 5

Fig. 6

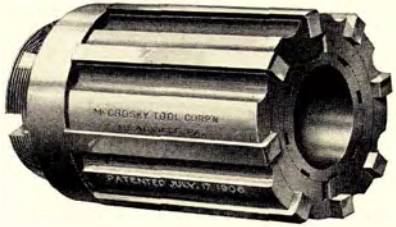


Fig. 8

1904 Model McCrosky Reamers

Fig. 4

Fig. 7

Fig. 7-T

These reamers are now made special to order only. Figs. 2, 5, and 6 can be made in all sizes from 1¼″ to 3″ inclusive, Fig. 8 from 2″ to 6″, and Figs. 4, 7, and 7-T from ¾″ to $1\frac{3}{16}$″. Figs. 2 and 4 are Hand Reamers, Figs. 5, 6, 7, and 7-T are Chucking Reamers. Prices on application. Blade prices page 23.

Blades for 1904 and 1908 Model McCrosky Reamers

This style blade is used in Figures 4, 7, and 7-T Reamers.

This style blade is used in Figures 2, 5, 6 and 8 Reamers.

Same prices apply to both style blades.

These blades are ground to length in sets. If odd blades are desired, that is, less than a set, send a sample blade from the reamer to insure perfect accuracy in length.

It is important in ordering blades to give the exact diameter and the Figure number of the reamer for which the blades are intended.

BLADES FOR FIGS. 2 AND 4 REAMERS				BLADES FOR FIGS. 5, 6, 7 AND 7-T REAMERS			BLADES FOR FIG. 8 REAMERS		
Any Reamer Diam. from	No. Blades in set	Carbon per set	High Speed per set	Any Reamer Diam. from	No. Blades in set	High Speed per set	Any Reamer Diam. from	No. Blades in set	High Speed per set
$\frac{3}{4}$ to 1"	6	$ 3.00	$ 6.00	$\frac{7}{8}$ to 1"	6	$ 5.50	2 to $2\frac{7}{16}$"	6	$10.00
$1\frac{1}{16}$ to $1\frac{3}{16}$	6	3.50	7.00	$1\frac{1}{16}$ to $1\frac{3}{16}$	6	6.25	$2\frac{1}{2}$ to $2\frac{13}{16}$	8	14.00
$1\frac{1}{4}$ to $1\frac{1}{2}$	6	4.25	9.00	$1\frac{1}{4}$ to $1\frac{1}{2}$	6	7.50	$2\frac{7}{8}$ to $3\frac{5}{16}$	8	16.75
$1\frac{9}{16}$ to $1\frac{7}{8}$	6	5.00	10.50	$1\frac{9}{16}$ to $1\frac{7}{8}$	6	9.00	$3\frac{3}{8}$ to $3\frac{1}{2}$	10	21.00
$1\frac{15}{16}$ to $2\frac{1}{4}$	8	7.50	15.00	$1\frac{15}{16}$ to $2\frac{1}{4}$	6	10.50	$3\frac{9}{16}$ to $3\frac{7}{8}$	10	23.00
$2\frac{5}{16}$ to $2\frac{5}{8}$	8	8.25	17.00	$2\frac{5}{16}$ to 3	8	15.75	$3\frac{15}{16}$ to $4\frac{3}{8}$	12	27.25
$2\frac{11}{16}$ to 3	10	10.00	22.00				$4\frac{11}{16}$ to 5	12	32.00
							$5\frac{1}{16}$ to 6	14	37.00

Blades of High Speed steel are strongly recommended for practically all reaming purposes except hand reaming. Carbon blades, however, can be furnished special to order for Figs. 5, 6, 7, 7-T and 8 reamers.

McCrosky Adjustable Hand Reamer

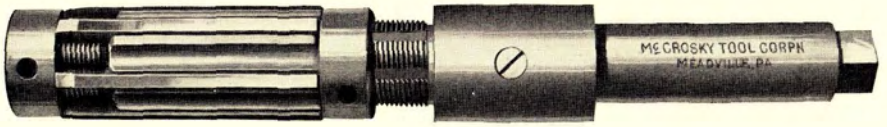


Fig. 40

The Fig. 40 Hand Reamer is recommended for sizing purposes where quick, easy adjustment is required.

A special feature is the hardened and ground guide sleeve, which may be held in any desired position on the shank by the headless set screw, or may be removed entirely in reaming short holes.

Two sizes of blades fit all sizes of Reamers from ¾" to 1½" inclusive, which greatly simplifies blade replacements. Blades are extra long and unevenly spaced.

The Reamer bodies are made from heat treated alloy steel. Square end of shank is hardened. Adjusting collars are hardened, and ground on the blade bearing surface.

Intermediate sizes or millimeter sizes may be furnished at price of next larger listed size.

Order by Fig. No., and state whether carbon or H. S. blades are desired. Order extra blades by Size No.

SIZE OF REAMER	PRICE EACH CARBON	PRICE EACH HIGH SPEED	LENGTH OVER ALL	EXTRA BLADES PER SET—CARBON	EXTRA BLADES PER SET—H. S.	BLADE SIZE NO.
¾"	$ 8.00	$12.00	8"	$3.50	$6.50	40 A
13/16	8.25	12.50	8½	3.50	6.50	40 A
⅞	8.50	13.00	8½	3.50	6.50	40 A
15/16	8.80	13.50	9	3.50	6.50	40 A
1	9.20	14.10	9	3.50	6.50	40 A
1 1/16	9.60	14.70	9	3.50	6.50	40 A
1⅛	10.00	15.30	9	3.50	6.50	40 A
1 3/16	10.50	16.00	9	4.50	8.50	40 B
1¼	11.00	16.70	9	4.50	8.50	40 B
1 5/16	11.50	17.40	9½	4.50	8.50	40 B
1⅜	12.00	18.20	9½	4.50	8.50	40 B
1 7/16	12.75	19.10	10	4.50	8.50	40 B
1½	13.50	20.00	10	4.50	8.50	40 B

McCrosky Floaters for Reamers, Taps, Etc.

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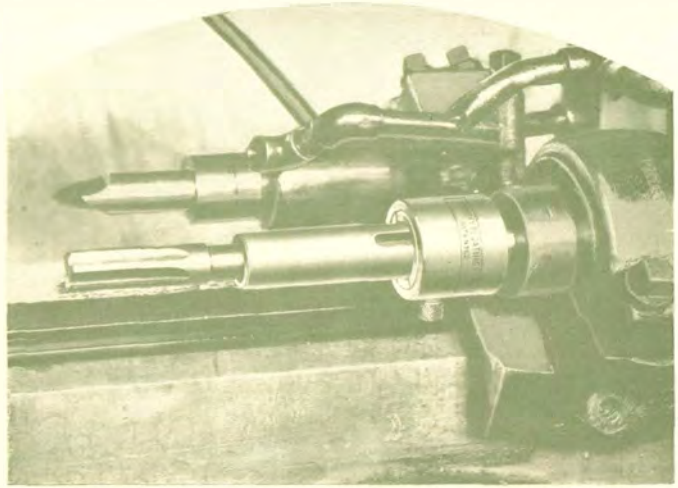

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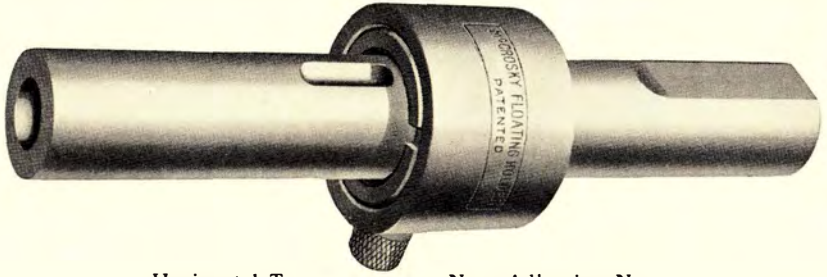
PERFECT PARALLEL AND ANGULAR ACTION

Perfect Parallel and Angular Action—Floats Without Friction

The **McCrosky Floating Holder** corrects spindle misalignment and allows the tool held perfect freedom of action. Both the thrust and driving strains are frictionless. The construction of the Holder is very simple and sturdy.

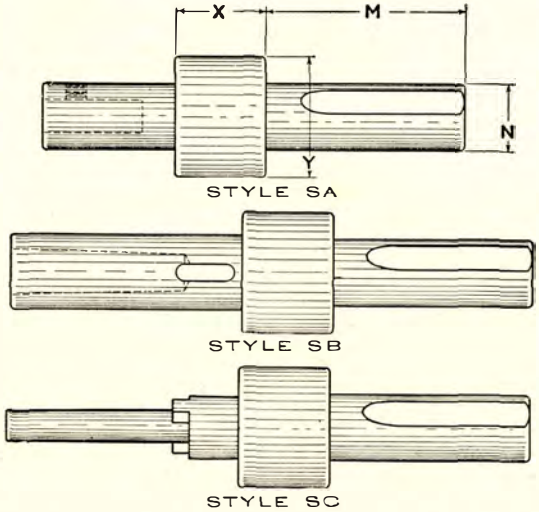
The McCrosky Floating Holder can be used in drill presses, turret lathes, automatics, boring mills, engine lathes, and in fact anywhere it is desired to overcome spindle misalignment in the use of reamers, taps, counterbores, etc. It can be used either vertically or horizontally. When used horizontally, it is equipped with an adjustable spring support to counteract the weight of the reamer or tool shank.



Horizontal Type

Note Adjusting Nut

Prices and Specifications of McCrosky Floating Holders with Straight Shanks

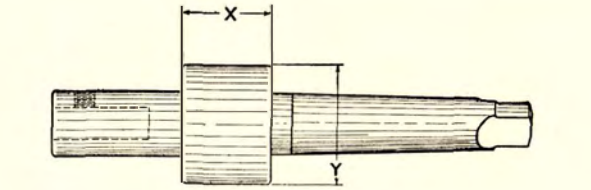


In ordering give size number, style, and state whether Holder is to be used vertically or horizontally. In ordering Style SA give diameter of shank for which Holder is to be bored. In ordering Style SB specify size Morse Taper hole required to fit shank. In ordering Style SC furnish sketch or other specifications showing exactly the size hole and driving slot reamer arbor is to fit. Straight shank Holders are regularly furnished according to specifications given in table. Shanks of special size and form can be furnished at slight additional cost.

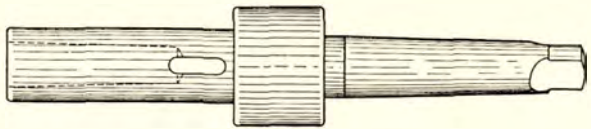
Prices for Taper Shank Holders on Page 28

SIZE NO.	FOR REAMERS UP TO	X	Y	M	N	STYLE SA		STYLE SB		STYLE SC	
						BOREO FOR ANY DIA. SHANK UP TO	PRICE	WITH MORSE TAPER SOCKET NO.	PRICE	WITH SHELL REAMER ARBOR	PRICE
1	1½" dia.	1⅝	1 13/16	3	1	⅝"	$15.50	1 or 2	$16.75	As specified	$17.50
2	3" dia.	2⅛	2 11/16	3¼	1½	1⅛"	21.00	3 or 4	23.50	As specified	25.00
3	6" dia.	2½	3 9/16	3½	2¼	1⅝"	32.00	4 or 5	35.00	As specified	37.00

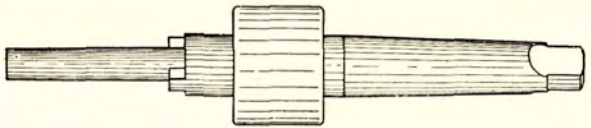
Prices and Specifications of McCrosky Floating Holders with Taper Shanks



STYLE TA



STYLE TB



STYLE TC

In ordering any taper shank Holder specify which taper is preferred. Also give size number, style, and state whether holder is to be used vertically or horizontally. In ordering Style TA give diameter of shank for which Holder is to be bored. In ordering Style TB specify size Morse Taper hole required to fit shank. In ordering Style TC furnish sketch or other specifications showing exactly the size hole and driving slot reamer arbor is to fit. Shanks of special size and form can be furnished at slight additional cost.

Prices for Straight Shank Holders on Page 27

SIZE NO.	FOR REAMERS UP TO	X	Y	MORSE TAPER SHANK NO.	STYLE TA		STYLE TB		STYLE TC	
					BORED FOR ANY DIA. SHANK UP TO	PRICE	WITH MORSE TAPER SOCKET NO.	PRICE	WITH SHELL REAMER ARBOR	PRICE
1	1½" dia.	1⅝	1 3/16	1, 2 or 3	⅝"	$16.75	1 or 2	$18.00	As specified	$18.75
2	3" dia.	2⅛	2 1/16	3, 4 or 5	1⅛"	23.50	3 or 4	25.00	As specified	26.50
3	6" dia.	2½	3 9/16	4, 5 or 6	1⅝"	35.00	4 or 5	38.00	As specified	40.00

McCrosky WIZARD Chucks and Collets

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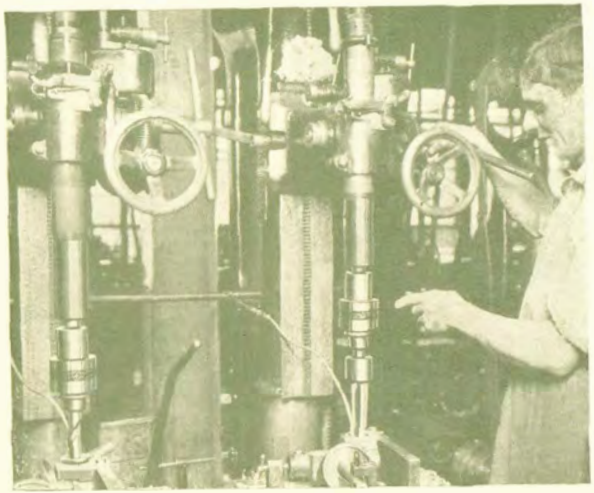
INCLUSIVE



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COST-CUTTING QUICK-CHANGE CHUCK EQUIPMENT

Simplicity of McCrosky WIZARD Operation and Construction

The illustration at the left shows how easy it is to change tools when your drill press is equipped with a McCrosky WIZARD Chuck and Collet Outfit. Without stopping or slowing the machine the operator can insert or release a tool **with one hand.** The chuck illustrated at the right has the collar broken away to show a collet entering the chuck. Note the following important features:

Chuck collar hardened all over; straight and uniform in shape.

Automatic lock, simple and positive. This is the feature that makes such rapid and easy tool changing possible.

Large flange on collet. This helps the operator both in inserting and releasing the collet. It also protects the bearing surface from being damaged by careless usage.

Cutting Costs by Saving Time

McCrosky WIZARD Quick-Change Chucks and Collets increase drill press output and cut production costs by reducing lost time practically to zero. They enable the operator to change tools with one hand without slowing or stopping the machine. They can be used in the spindle of any drill press and in many other places, such as the tail-stock of a lathe, with equal effectiveness. On both production and variety work they often double output.

The McCrosky WIZARD Chuck is a sturdy, simple tool that gives efficient service under all kinds of conditions and over a long period of time. It consists of only two main parts, a driving body with Morse taper shank to fit the drill press spindle and a slotted collar to hold the collet up in the driving body. This collar is straight and uniform in shape and is hardened all over. These features make the WIZARD very easy to handle and greatly increase its resistance to hard usage.

The action of the WIZARD Chuck is instantaneous and the operation exceedingly simple. To insert a tool the operator needs only to push the collet into the revolving chuck. The positive automatic latch (see illustration on opposite page) locks it instantly. Releasing is just as rapid and easy. A slight pressure of the thumb and forefinger on the knurled collar of the chuck releases the collet instantly and allows it to drop into the operator's hand. The flange on the Wizard Collet is especially formed to fit the operator's hand. This feature makes the inserting or releasing of a tool as safe as it is easy. This flange also protects the bearing surface of the collet when it is not in use.

The supremacy of the McCrosky WIZARD among quick-change chucks is further evidenced by the following **exclusive features:**

1. **Tools are held rigidly and perfectly centered** by the taper on the upper end of WIZARD Collets. This taper is found on no other quick-change collet.

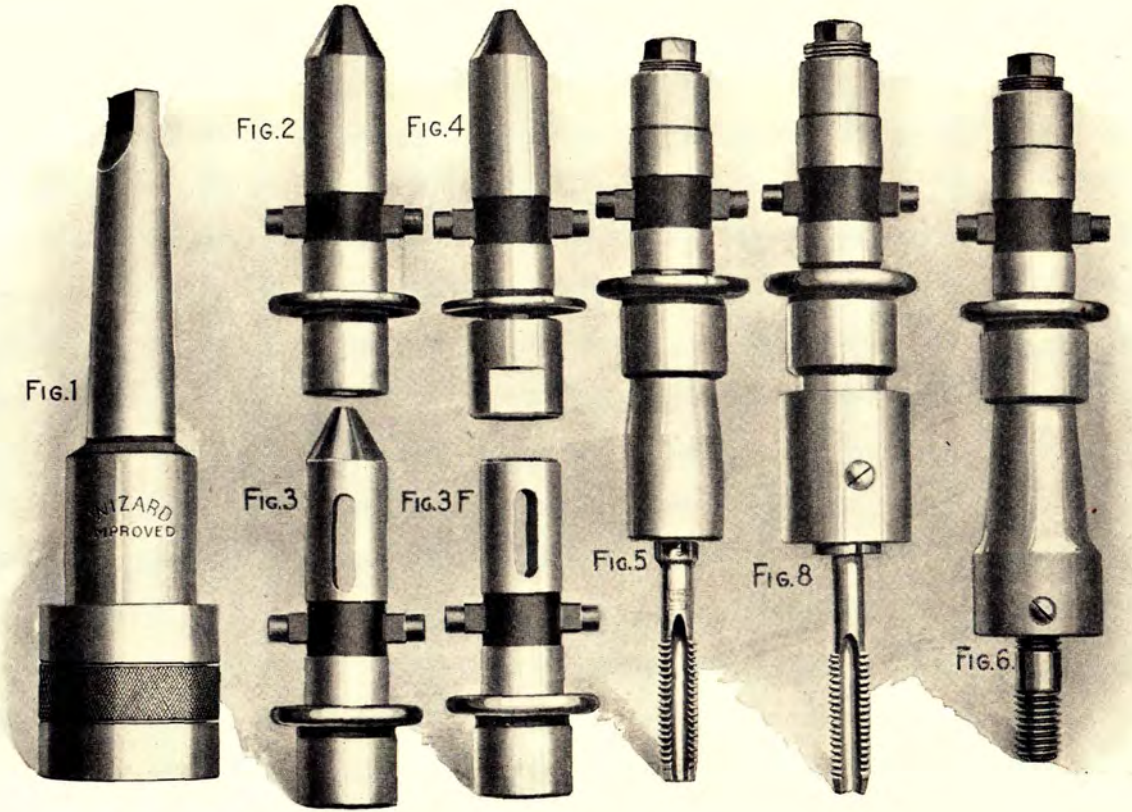
2. **A better and more complete assortment of Collets is offered.** The wide range of the Wizard Collets gives you a collet for every tool. These collets take the place of ordinary Morse taper sockets and, being hardened, will outwear them ten to one. Adjustable collets for straight shank tools and compact, sensitive Friction Drive Collets for tapping and stud setting are found only in the WIZARD.

3. **A much more powerful drive in the WIZARD.** It drives backward as well as forward.

4. **WIZARD Collets do not bind or stick in the Chuck.** They bear in the chuck at only two points, the taper end and the part between the driving lugs and the flange, and this bearing surface is fully protected. All other collets of this type bear their entire length, are entirely unprotected, and any little damage to the bearing surface causes them to stick in the chuck.

5. **Much greater durability.** WIZARD Chucks are hardened and ground all over. WIZARD Collets are drop-forged, machined, hardened, and ground. Many of the WIZARD Chucks and Collets which were first put on the market in 1908 are still giving good service.

McCrosky Wizard Chuck and various kinds of Wizard Collets



For descriptions see following page.

Description and Function of WIZARD Chuck and Various Collets

For sizes and prices see pages 35 to 41 inclusive

Figure 1 shows a WIZARD Chuck, which is inserted directly into your drill press spindle, or wherever it is desired to use it. **Figure 2** represents the WIZARD blank collet, which is left soft and may be easily bored out to receive straight or special shanks of any kind.

Figure 3 shows the regular WIZARD Morse taper collets. These are furnished with various sizes of Morse taper holes, and therefore cover almost the complete range of Morse taper shank tools.

Figure 3-F shows a Fig. 3 collet arranged to float. The regular WIZARD Collets with the taper end are held rigidly in the Chuck. The WIZARD gives you your choice, whereas with other chucks of this kind all the collets float whether desired or not.

Figure 4 represents an adjustable collet for holding small straight shank tools in sizes where it may not be desired to use taper shanks. Three of these collets will take all sizes of straight shanks from 0 to 13-32".

Figure 5 and Figure 8 show the WIZARD Friction Drive Tapping Collets. Together these two collets take all kinds of taps. They are insurance against broken taps. Friction slips the moment the tap bottoms or meets undue resistance. The friction device is very simple, sensitive, compact and powerful. Friction is produced by a coarse taper plug that is drawn into a fibre-lined hole by a differential screw adjustment at the top of the collet. Adjustment of friction is exceedingly simple. Each tap has its own friction properly adjusted. Thus it is not necessary to readjust the friction for different sizes of taps as is the case with all other friction drive devices. For further details on both of these collets see pages 38 and 39.

Figure 6 is the WIZARD Friction Stud-Setting Collet. The Friction drive feature is exactly the same as in Fig. 5 and Fig. 8. It is small, compact, and easy to operate. The stud is released from collet by simply reversing the spindle. By using this collet with a WIZARD Chuck and other WIZARD Collets you can drill, tap, and set studs in rapid succession without stopping or slowing the machine. Any number of stud-setting collets can be used in the same WIZARD Chuck. Since the friction in each is adjusted for one size stud, it is not necessary to stop to readjust the friction for different sizes of studs. This feature is found only in the WIZARD.

WIZARD Collets can be made special to suit an even larger variety of conditions than shown here. For example, we have fitted thousands of these collets, both positive and friction drive, for pipe taps, forming and facing tools, etc. Tell us your needs and we shall try to suggest something of value to you.

Showing Relative Sizes of McCrosky WIZARD Chucks and Collets

PATENTED

Size A Chuck with No. 3 Morse Taper Shank and No. 32 Collet.

Size B Chuck with No. 4 Morse Taper Shank and No. 33 Collet.

Size C Chuck with No. 5 Morse Taper Shank and No. 34 Collet.

Size D Chuck with No. 6 Morse Taper Shank and No. 35 Collet.

Itemized McCrosky WIZARD Prices and Specifications

A McCrosky WIZARD Outfit consists of a Chuck for the spindle, a sufficient assortment of collets to take all the tools on the job, and a stand for holding the collets and tools in close reach of the operator.

For detailed description and function of the **WIZARD** Chuck and the various kinds of Collets, see page 33 and pages 36 to 40.

Wizard Stands

The WIZARD Stand (see illustration on this page) greatly increases the efficiency of WIZARD Chucks and Collets. It facilitates the rapid changing of tools and keeps the workman from burring them up by careless usage around the machine. It has cast iron top with reamed holes, heavy cast iron base and solid steel upright. Top can be used swiveling or held rigidly. Note angle of table, making all tools instantly accessible.

In ordering specify whether for size A, B, or C Collets.

PRICE FOR ANY SIZE, (except size D) **$9.00 EACH.** Made for size D Collets special to order at special price.

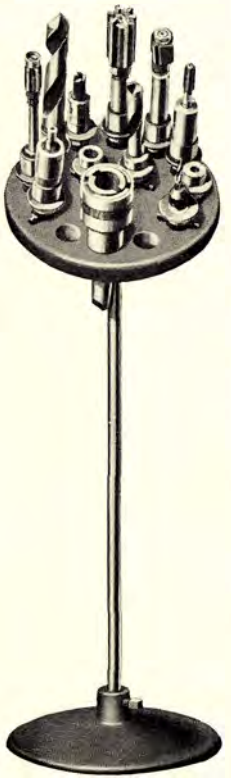
Wizard Chucks

In ordering a WIZARD outfit, first decide whether size A, B, C, or D is desired. This will depend on the maximum range desired. Thus if it will not be required to use tools with shanks larger than Number 2 Morse Taper, size A will be large enough. Any size Chuck will take the smallest tools. The only difference is in the maximum range.

Also state which size Morse Taper shank is preferred on the Chuck to fit the Drill Press spindle. Chucks will be furnished with shanks left blank at regular prices if desired, so they may be turned to suit any special conditions. Chucks with special straight or taper shanks will be furnished at special prices.

Chuck Size	Size of Chuck Shank	Range of Fig. 3 Collet	Diam. Hole in Chuck	Largest Diam. of Chuck	Price Each
A	Morse Taper 2 or 3	Morse Taper 1 and 2	$\frac{15}{16}$	$2\frac{1}{8}$	$ 9.00
B	Morse Taper 3 or 4	Morse Taper 1, 2, and 3	$1\frac{1}{4}$	$2\frac{3}{4}$	12.00
C	Morse Taper 4 or 5	Morse Taper 1, 2, 3, and 4	$1\frac{1}{16}$	$3\frac{7}{16}$	18.00
D	Morse Taper 5 or 6	Morse Taper 1, 2, 3, 4, and 5	$2\frac{3}{8}$	$4\frac{5}{8}$	40.00

Price Lists of Individual WIZARD Collets, pages 36 to 40.
Summary of Collet Prices and Specifications, page 41.



WIZARD STAND

Prices and Specifications of Fig. 2, Fig. 3 and Fig. 3-F WIZARD Collets

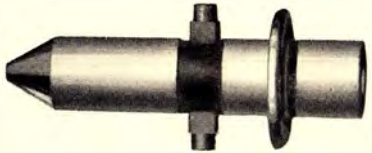


Fig. 2—Blank Collet

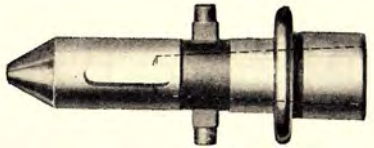


Fig. 3—Regular Morse Taper Collet

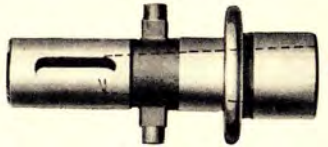


Fig. 3-F—Morse Taper Floating Collet

Figure 3 is furnished with various sizes of Morse taper holes and covers almost the complete range of Morse taper shank tools, such as drills, reamers, etc. **Figure 2** is left soft and can easily be bored out to receive straight or special shanks of any kind. This work can easily be done in your own tool room. **Figure 3-F** is merely a Fig. 3 collet arranged to float in the WIZARD Chuck. In general we recommend floating the tool in the collet instead of floating the collet in the chuck.

In ordering give **reference number** and state whether collets are to be used in Size A, B, C, or D WIZARD Chuck.

Reference Number	SPECIFICATIONS	PRICE EACH FOR CHUCK SIZE A	B	C	D
	Figure 2 Collets				
20	Blank, to be fitted for tool by purchaser	$1.50	$2.10	$3.00	$5.60
	Figure 3 Collets				
31	For any tool with No 1 Morse Taper Shank	2.50	3.50	4.90	9.75
32	" " " " " 2 " " "	2.50	3.50	4.90	9.75
33	" " " " " 3 " " "		3.50	4.90	9.75
34	" " " " " 4 " " "			4.90	9.75
35	" " " " " 5 " " "				9.75
	Figure 3-F Collets				
31-F	For any tool with No. 1 Morse Taper Shank	2.50	3.50	4.90	9.75
32-F	" " " " " 2 " " "	2.50	3.50	4.90	9.75
33-F	" " " " " 3 " " "		3.50	4.90	9.75
34-F	" " " " " 4 " " "			4.90	9.75
35-F	" " " " " 5 " " "				9.75

Prices and Specifications of Fig. 4 and Fig. 21 WIZARD Collets

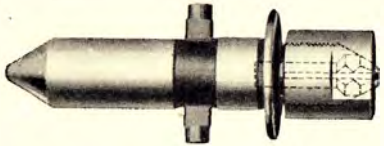


Fig. 4 Collet

Jaw for Fig. 4 Collet

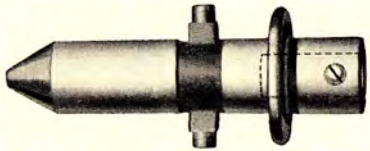


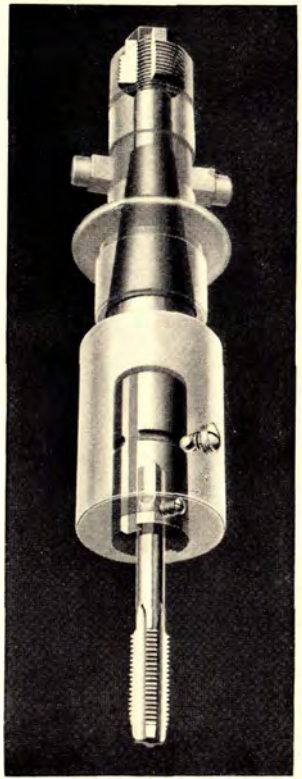
Fig. 21 Collet

Figure 4 is an adjustable collet for holding small straight shank tools such as small drills, etc., in sizes where it is not desired to use taper shanks. In ordering give **reference number** and size of Chuck in which collet is to be used. In ordering extra jaws give **reference number.**

Figure 21 is a non-adjustable collet adapted to straight shank tools. The tool is held and driven by a headless set screw. In ordering Fig. 21 collects give **reference number,** state whether they are to be used in size A, B, C, or D Chuck, and give exact micrometer dimensions of the tool shanks that are to be used in collets.

Reference Number	SPECIFICATIONS	PRICE EACH FOR CHUCK SIZE A	B	C	D
	Figure 4 Collets				
41	Takes all sizes straight shanks from O to 1/8"	$3.75	$4.25	$4.60	
42	" " " " " " No. 29 drill to 17/64	3.75	4.25	4.60	
43	" " " " " " 17/64 to 13/32	4.25	4.75	5.10	
	Figure 21 Collets				
21	Fitted for any size straight shank within its range ("A" up to 3/8 dia. "B" up to 5/8 dia "C" up to 1 dia. "D" up to 1½ dia.)	3.90	5.00	6.50	$11.25
	Extra Jaws for Figure 4 Collet				
41-J	Takes all sizes straight shanks from O to 1/4	.85	.85	.85	
42-J	" " " " " " No. 29 drill to 17/64	.85	.85	.85	
43-J	" " " " " " 17/64 to 13/32	1.10	1.10	1.10	

McCrosky WIZARD Friction Drive Collets—Fig. 5 and Fig. 8



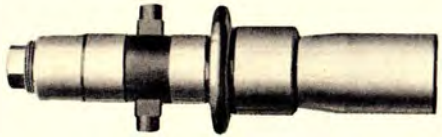


FIG. 5

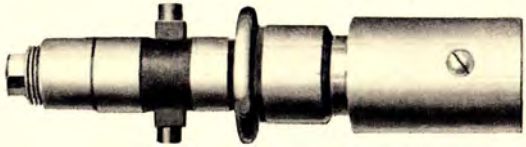


FIG. 8

Figure 5 Friction Drive Collet takes taps with Beaman and Smith style of shank. Three collets take all sizes of taps from ¼" to 1¼". Figure 8 Friction Drive Collet takes ordinary hand taps. The accompanying phantom illustration of Fig. 8 Collet shows the simple, compact friction device that is common to both Fig. 5 and Fig. 8 Collets. The coarse taper plug is drawn into a fibre-lined hole by the differential screw adjustment at the top of the collet.

The phantom illustration also shows how the hand tap is held in the bushing and the bushing in the Fig. 8 Collet. The tap is driven by the square end. The hollow set screw merely extends into the flat place on the tap shank to keep the tap from falling out. The bushing is driven by two keys the same as Beaman and Smith taps. The bushing is held in the collet by a round ball that fits into a circular groove under spring tension. If in backing out the tap the spindle should be raised too rapidly, the bushing will be drawn out of the collet without any injury to the thread. Different bushings for different sizes of taps may be used in the same collet.

Fig. 8 type of collet provides an excellent floating feature. The bushing floats in the collet and the tap may be made to float in the bushing.

In determining the size collet for your job, the following informaiton may be of assistance. Friction Drive Collets for Chuck size A will pull standard taps as large as ⅝"; size B, 1"; size C, 1¼"; and size D, 1½". This will vary with the thread and kind of metal being tapped.

Prices and Specifications of WIZARD Friction Drive Collets—Fig. 5 and Fig. 8

In ordering give **reference number,** and state whether collet is to be used in size A, B, C, or D Chuck. **In ordering No. 55, 56, and 57 Collets, (Fig. 8),** either send the taps for which the collets are to be fitted or give the exact micrometer diameter of the tap shank and the width of the square end. In ordering these Collets also state whether a complete Collet is desired for each size tap, or whether extra bushings for the various taps will be sufficient. In cases where different sizes of taps are to be used on the same job, it is much better to have a complete Collet for each tap. This will save changing the friction constantly to suit the different sizes of taps, and will also save changing from one bushing to another in the Collet. In ordering extra bushings for Fig. 8 Collets give **reference number.**

Reference Number	SPECIFICATIONS	PRICE EACH FOR CHUCK SIZE A	B	C	D	O. D. OF BUSHING
	Figure 5 Collets					
51	Takes Beaman & Smith Shank Taps from $\frac{1}{4}$" to $\frac{3}{8}$"	$ 8.60	$10.50	$13.00	$23.25	
52	" " " " " " $\frac{7}{16}$ to $\frac{5}{8}$	8.60	10.50	13.00	23.25	
53	" " " " " " $\frac{5}{8}$ to $1\frac{1}{4}$		10.50	13.00	23.25	
	Figure 8 Collets					
55	Fitted for any one size hand tap from $\frac{3}{16}$ to $\frac{7}{16}$	12.00	13.90	16.40	26.65	
56	" " " " " " " " $\frac{1}{2}$ to $\frac{3}{4}$	13.00	14.90	17.40	27.65	
57	" " " " " " " " $\frac{13}{16}$ to $1\frac{1}{4}$		16.00	18.50	28.75	
550	A blank No 55 collet to be fitted for tap by purchaser	10.00	11.90	14.40	24.65	
560	" " No. 56 " " " " " " " "	11.00	12.90	15.40	25.65	
570	" " No. 57 " " " " " " " "		14 00	16.50	26.75	
	Extra Bushings for Fig. 8 Collet					
55-T	Fitted for any one size hand tap from $\frac{3}{16}$ to $\frac{7}{16}$	3.40	3.40	3.40	3.40	$\frac{3}{4}$"
56-T	" " " " " " " " $\frac{1}{2}$ to $\frac{3}{4}$	3.90	3.90	3.90	3.90	$1\frac{1}{8}$
57-T	" " " " " " " " $\frac{13}{16}$ to $1\frac{1}{4}$		4.50	4.50	4.50	$1\frac{3}{4}$
550-T	A blank No 55-T Bushing to be fitted for tap by purchaser	1.40	1.40	1.40	1.40	$\frac{3}{4}$
560-T	" " No. 56-T " " " " " " " "	1.90	1.90	1.90	1.90	$1\frac{1}{8}$
570-T	" " No. 57-T " " " " " " " "		2.50	2.50	2.50	$1\frac{3}{4}$
	Fibre Reliners and Washers					
	Reliners	.25	.35	.40	.45	
	Washers	.06	.08	.10	.12	

Prices and Specifications of WIZARD Stud Setting Collets—Fig. 6

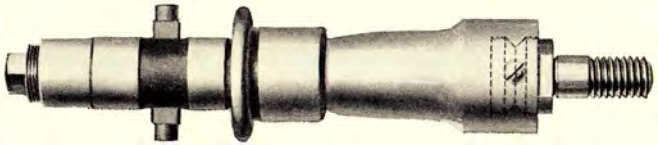
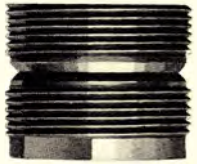


Figure 6 Collet



Bushing for Fig. 6

The friction drive feature in the WIZARD Friction Stud-Setting Collet is exactly the same as in Fig. 5 and Fig. 8 Collets. There are no taper pins to drive loose to release the strain on the upper end of the stud. Reversing the spindle releases the stud. Any number of stud-setting collets can be used in the same WIZARD Chuck, the friction in each being adjusted to the one size stud.

In ordering give **reference number,** and state whether collet is to be used in size A, B, C, or D Chuck. Also give sizes of studs, pitch of threads, and whether threads are V form or U.S.S. If possible send a sample of each size stud. Also state whether a complete Collet is desired for each size stud, or whether extra bushings for the various sizes will be sufficient. On jobs where different sizes of studs are to be set in succession, it is much better to have a complete Collet for each size stud. This saves changing the friction constantly to suit the different sizes of studs, and also saves changing from one bushing to another in the Collet. Order extra bushings by **reference number.**

Reference Number	SPECIFICATIONS	PRICE EACH FOR CHUCK SIZE A	B	C	D	O. D. OF BUSHING
	Figure 6 Collets					
61	Fitted for any one size stud from O to $\frac{9}{16}$"	$16.00	$18.00	$20.00	$30.00	
62	" " " " " " " " $\frac{5}{8}$ to $1\frac{5}{16}$		20.00	22.00	32.00	
63	" " " " " " " " 1 to $1\frac{1}{2}$			30.00	40.00	
	Extra Bushings					
61-S	Fitted for any one size stud from O to $\frac{9}{16}$ (for No. 61 Collet)	3.60	3.60	3.60	3.60	$1\frac{1}{16}$-20
62-S	" " " " " " " " $\frac{5}{8}$ to $1\frac{5}{16}$ (" " 62 ")		4.00	4.00	4.00	$1\frac{1}{2}$-16
63-S	" " " " " " " " 1 to $1\frac{1}{2}$ (" " 63 ")			6.00	6.00	$2\frac{1}{8}$-16

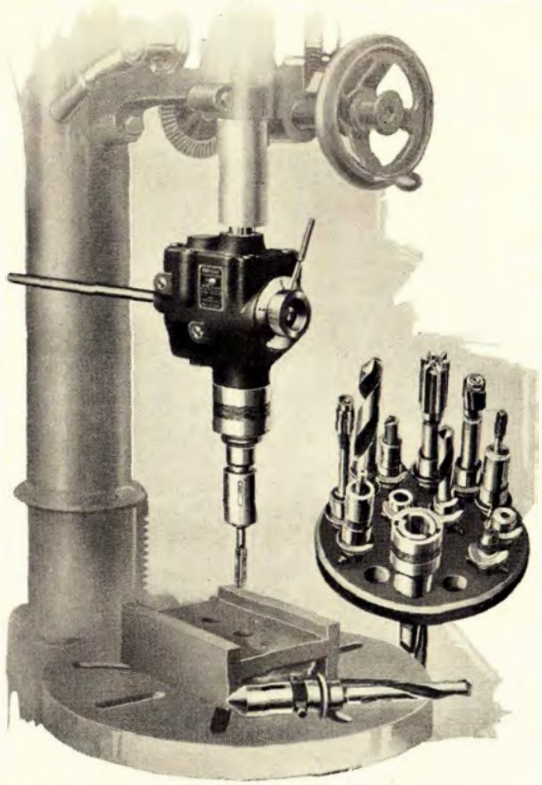
Summary of Prices and Specifications—Order by Reference Number

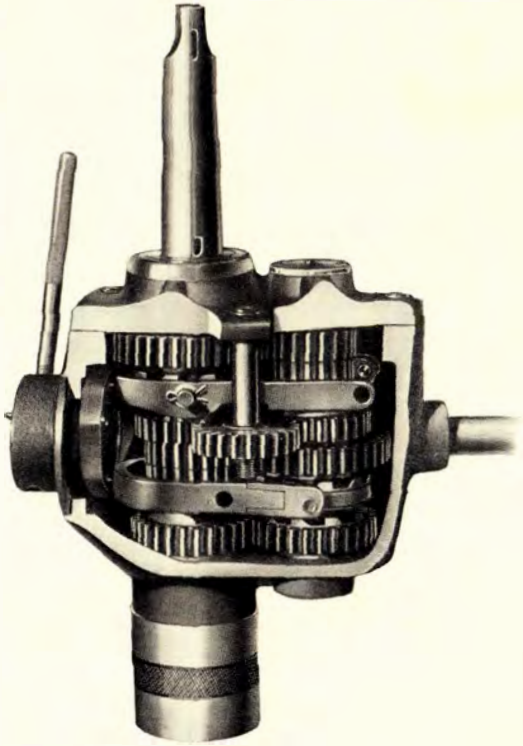
Reference Number	WIZARD COLLETS	PRICE EACH FOR CHUCK SIZE A	B	C	D	Extra Bushings Each
20	**Fig. 2**—Blank, to be fitted for tool by purchaser	$1.50	$2.10	$3.00	$ 5.60	
21	**Fig. 21**—Fitted for any size straight shank tool within its range	3.90	5.00	6.50	11.25	
	Figure 3 Collets					
31	For any tool with No. 1 Morse Taper shank	2.50	3.50	4.90	9.75	When one Fig. 8 collet is to be used for more than one size tap, order one extra bushing for each additional size tap. The same is true when it is desired to use one Fig. 6 collet for more than one size stud.
32	" " " " No. 2 " " "	2.50	3.50	4.90	9.75	
33	" " " " No. 3 " " "		3.50	4.90	9.75	
34	" " " " No. 4 " " "			4.90	9.75	
35	" " " " No. 5 " " "				9.75	
	Figure 4 Collets					
41	Takes all sizes straight shanks from O to $\frac{1}{8}$"	3.75	4.25	4.60		
42	" " " " " " No. 29 drill to $\frac{17}{64}$	3.75	4.25	4.60		
43	" " " " " " $\frac{17}{64}$ to $\frac{13}{32}$	4.25	4.75	5.10		
	Figure 5 Collets					
51	Takes Beaman & Smith shank taps from $\frac{1}{4}$ to $\frac{3}{8}$	8.60	10.50	13.00	23.25	
52	" " " " " " " $\frac{7}{16}$ to $\frac{5}{8}$	8.60	10.50	13.00	23.25	
53	" " " " " " " $\frac{5}{8}$ to $1\frac{1}{4}$		10.50	13.00	23.25	
	Figure 8 Collets					
55	Fitted for any one size hand tap from $\frac{3}{16}$ to $\frac{7}{16}$	12.00	13.90	16.40	26.65	$3.40
56	" " " " " " " $\frac{1}{2}$ to $\frac{3}{4}$	13.00	14.90	17.40	27.65	3.90
57	" " " " " " " $\frac{13}{16}$ to $1\frac{1}{4}$		16.00	18.50	28.75	4.50
550	A blank No. 55 Collet to be fitted for tap by purchaser	10.00	11.90	14.40	24.65	1.40
560	" " No. 56 " " " " " " " " "	11.00	12.90	15.40	25.65	1.90
570	" " No. 57 " " " " " " " " "		14.00	16.50	26.75	2.50
	Figure 6 Collets					
61	Fitted for any one size stud from O to $\frac{9}{16}$	16.00	18.00	20.00	30.00	3.60
62	" " " " " " " $\frac{5}{8}$ to $\frac{15}{16}$		20.00	22.00	32.00	4.00
63	" " " " " " " 1 to $1\frac{1}{2}$			30.00	40.00	6.00

Figures 5 and 8 Collets for sizes C and D Chucks made special to order for taps larger than $1\frac{1}{4}$" at special prices.
For pulling capacity of these Friction Tapping Collets, see page 38.

McCrosky WIZARD Variable Speed and Reversing Attachment

PATENTED





McCrosky WIZARD Variable Speed and Reversing Attachment

The **V. S. & R.** Attachment completes and perfects the McCrosky-WIZARD Chuck idea. The WIZARD Chuck, which is a part of the Attachment, permits the use of any number of tools of all sizes without once stopping the machine. The WIZARD V. S. & R. Attachment provides the proper speed for each tool and a reverse for tapping, etc.

For example, if you wish to use in succession a small drill, a large drill, and a tap on the same job, the WIZARD Chuck and Collet feature would of course make it easy to change from one tool to the other without stopping the machine, while the Variable Speed and Reversing feature would give you in addition a high speed for the small drill, an intermediate speed for the large drill, a slow speed for the tap, and a reverse with quick return for backing out the tap.

The **three speeds forward** and the **reverse** place the V. S. & R. Attachment two speeds ahead of all other reversing or tapping attachments, and ordinary drill speeders, and give the Drill Press in which it is installed all the advantages of a high-priced drilling machine. The V. S. & R. Attachment can also be used to advantage on large modern Drill Presses, and it is especially valuable on Radials. It will save running them at machine-racking speeds on small drilling, and will greatly increase the range of speeds that can be obtained for small work.

The **V. S. & R.** Attachment is designed like the **transmission of an automobile** and is built with equal care. All bearings are bushed—the four main bearings with special cast iron, and all other bearings with **Non-Gran Bronze.** There are no sliding gears, the transmission being effected by two hardened and positive-acting clutches. All gears are hardened steel, and all clutches are made from highest quality heat treated chrome nickle steel.

Taps, large drills, etc., should naturally be run on the slow or direct speed, and therefore in all such work the gears run idle and without strain. The direct speed is the same as the spindle speed, and of course can easily be regulated to suit the work in hand. The intermediate speed ratio is 2 to 1, and the high speed ratio 3.4 to 1.

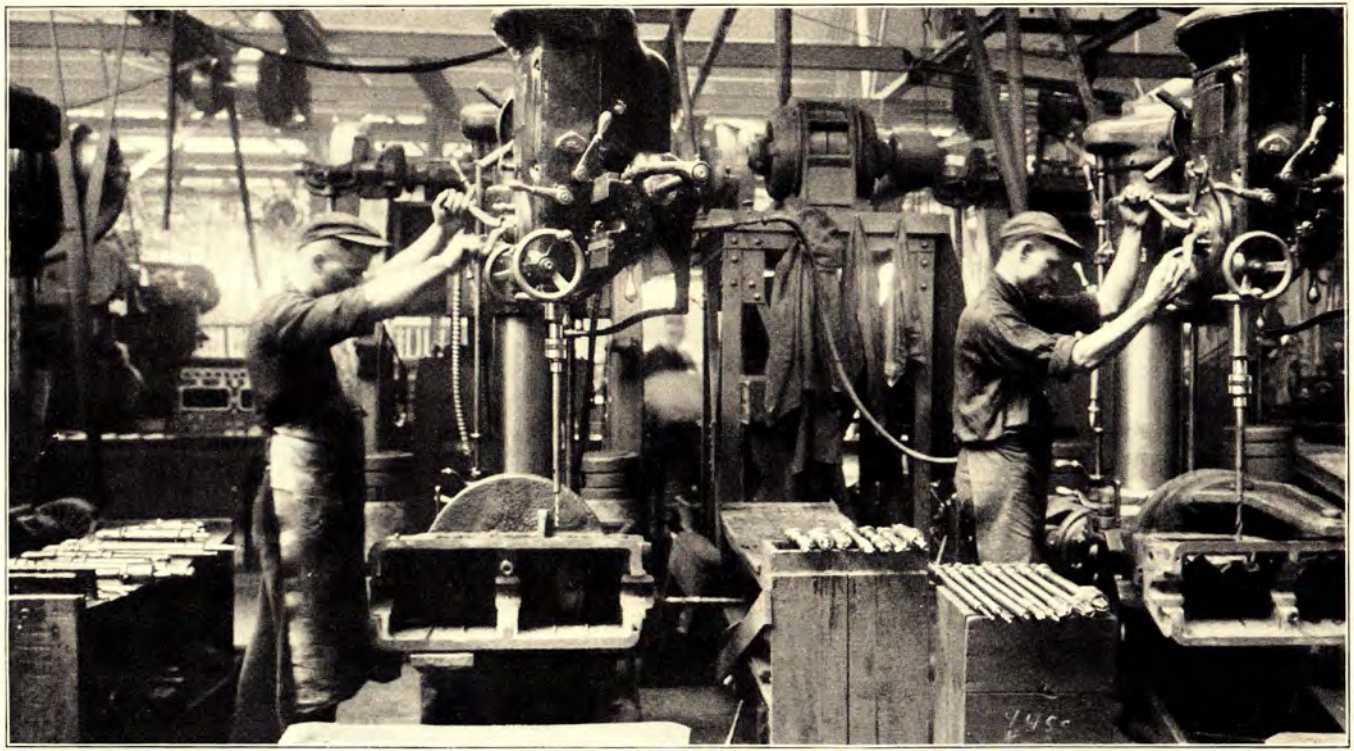
Taper hole or taper stub arbor will be furnished in place of the **WIZARD** Chuck at no additional charge, so that any other style of chuck may be used if desired.

For description and price list of **WIZARD** Collets that should be used in connection with this attachment, see pages 33, 36, 37, 38, 39, and 40.

The length of the attachment, not including the shank or chuck, is 7″.

Price, with either Size A or B WIZARD Chuck, and either No. 3, 4 or 5 Morse Taper shank to fit the Spindle $200.00

16 TOOL CHANGES 90 TIMES A DAY WITH 2 WIZARD OUTFITS



Full details of this cost-cutting performance furnished on request.

McCrosky Turret Attachments for Lathes

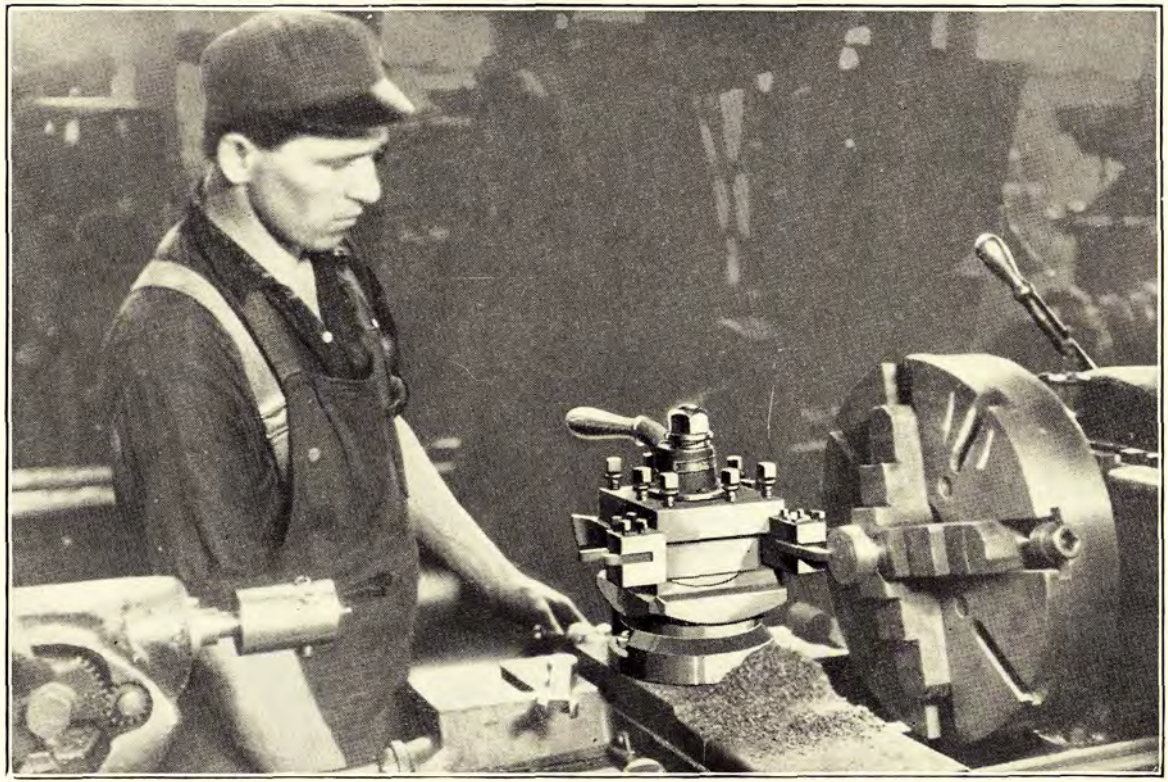
PAGES
45 TO 56
INCLUSIVE

COURTESY MACHINERY

GENERAL
INDEX
PAGE 68

MAKE EVERY ENGINE LATHE A TURRET LATHE

McCrosky Turret Installed on Lathe



Make Every Lathe a Turret Lathe

An Engine Lathe equipped with a **McCrosky Turret** can perform, with one handling of the work and at a big saving in time, several operations in quick succession. This service means Turret Lathe advantages for a nominal investment. Costs are cut, and in many cases the output per unit time is increased from 25 to 50 per cent. Used on a cross side of a Turret Lathe, a **McCrosky Turret** also permits additional operations to be performed.

McCrosky Turrets are ruggedly built to stand up under the hardest work. They are unequalled in simplicity (only four main parts), durability, rigidity, and indexing accuracy. Rapidity of operation and reliability are assured by the absence of small parts or complications of any kind, making it possible to obtain maximum results with only ordinary semi-skilled labor. The disassembled view of Style K Turret on page 49 shows clearly the general construction and outstanding features common to all styles of **McCrosky Turrets.**

The patented indexing feature is positive, powerful, and unfailing. This mechanism, the most vital part of any turret attachment, requires no extra parts, no taper pins, bushings, plungers, or springs. The revolving turret body has a corrugated bearing surface on its under side which simply meshes into similar corrugations on the stationary base. Releasing the clamping handle a half turn raises the turret body clear of these corrugations, permitting the turret to be swung to any desired position. All **McCrosky Turrets** have twelve indexing positions. Thus a 3-tool Turret has four positions available for each tool as desired, a 4-tool Turret has three positions for each tool, and a 6-tool Turret has two positions for each tool. This is an exclusive McCrosky feature.

McCrosky Turrets need no special attachments. Most styles are attached to the lathe in any one of three ways, either directly to the top of the compound rest, or bolted to the bolt circle of compound rest, or attached to the cross slide as a carriage turret. These turrets are made in nine styles and various sizes to suit almost all conditions. They are all described in the following pages.

Styles L and K McCROSKY Turrets

These Turrets are the same as four ordinary tool posts combined in one, and are used for a great variety of work. The bodies of these turrets are made from solid steel billets.

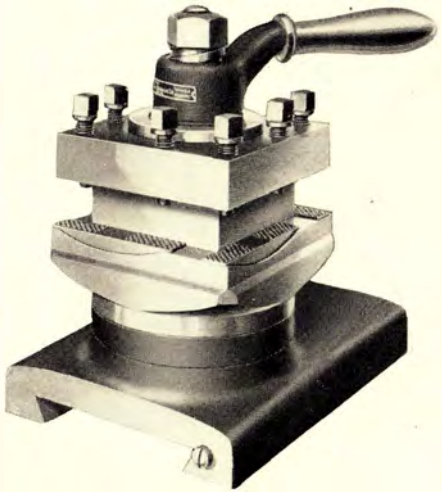
Style L Turret is bolted to bolt circle of compound rest. Style K Turret is a carriage turret as shown.

For heavy work on lathes larger than 20" swing, these turrets are furnished without rocker block for the tools, to give greater rigidity. The smaller turrets may also be furnished this way special if desired.

Style L Turret may be furnished with special base to fit T slot of compound rest at same price if lathe center height above top of compound is not less than 2⅝" for 5" sq. turret, 3⅞" for 6" sq. turret, and 4¼" for 7¾" sq. turret.

In ordering state style desired, size of lathe, and give dimensions as shown on page 52.

STYLE K



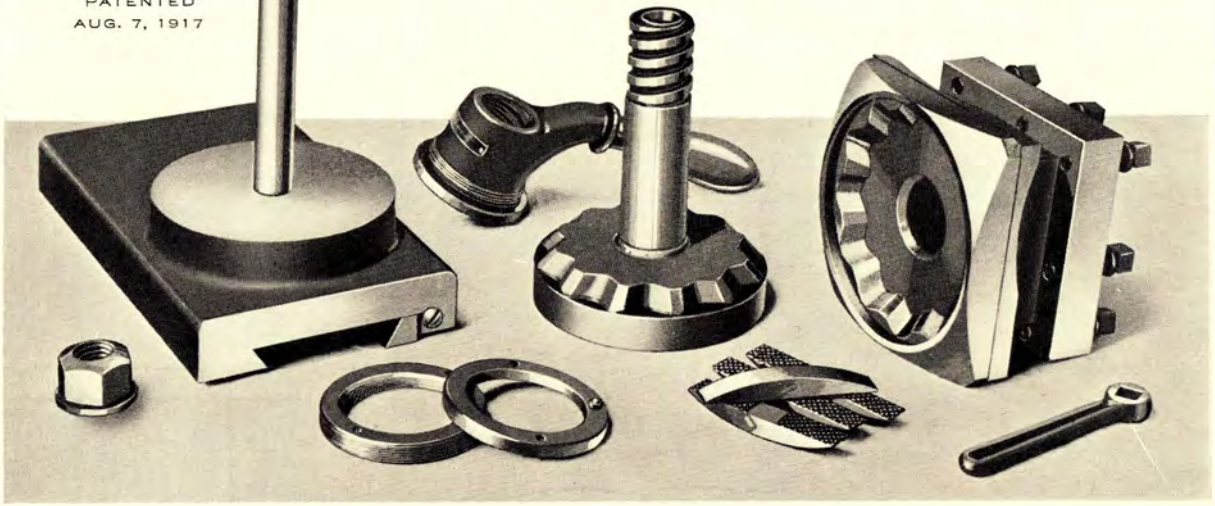
STYLE L

For Lathe Size	Size of Turret	Maximum Size of Tool	Price Style L	Price Style K
12"	5" square	1⅛ x ½	$ 95.00	$105.00
14	5 "	1¼ x ½	100.00	110.00
16	6 "	1⅜ x ⅝	120.00	130.00
18	6 "	1⅜ x ⅝	125.00	135.00
20	6 "	1⅜ x ⅝	130.00	140.00
22	7¾ "	1⅝ x ¾	150.00	160.00
24	7¾ "	1⅝ x ¾	155.00	165.00
28	7¾ "	1⅝ x ¾	165.00	175.00

Showing Parts and Construction of Style K McCrosky Turret. Indexing feature and general construction same in all styles

UNEQUALED FOR SIMPLICITY, RIGIDITY, AND INDEXING ACCURACY

PATENTED AUG. 7, 1917



Styles J and N McCROSKY Turrets

Style J Turret is bolted to bolt circle of compound rest. Furnished with either 4 or 6 holes. Holes are left under size so they may be bored out to size in exact alignment with lathe spindle after being mounted on lathe.

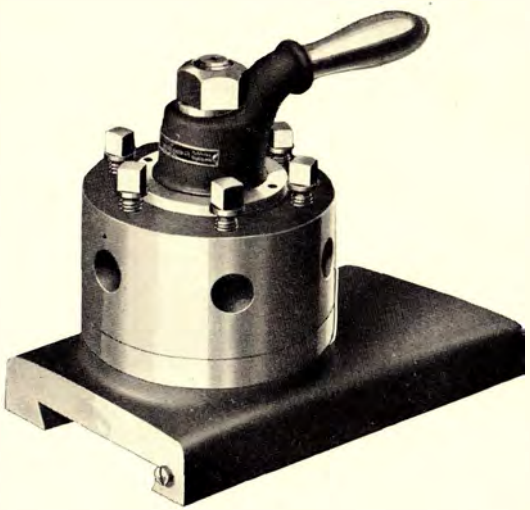
Style N Turret is a carriage turret as shown, and otherwise is same as Style J.

The bodies of both Style J and Style N Turrets are made from solid steel billets.

STYLE J

In ordering state Style desired, size of lathe, and give dimensions as shown on page 52.

STYLE N



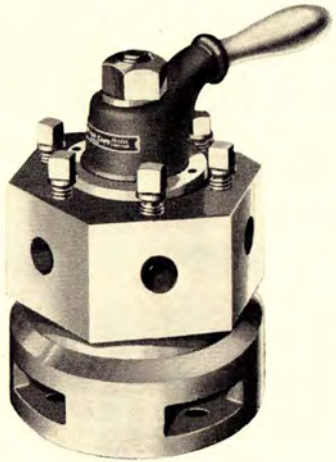
For Lathe Size	Dia. Turret	Maximum Dia. hole	Price Style J	Price Style N
12"	6½	1¼	$ 95.00	105.00
14	6½	1¼	100.00	110.00
16	8	1½	120.00	130.00
18	8	1½	125.00	135.00
20	9	1⅝	140.00	150.00
22	9	1¾	145.00	155.00
24	9	1¾	150.00	160.00

Styles R and S McCROSKY Turrets

Style R Turret is bolted to bolt circle of compound rest. Holes are left under size in order that they may be bored out to size in exact alignment with lathe spindle after being mounted on lathe.

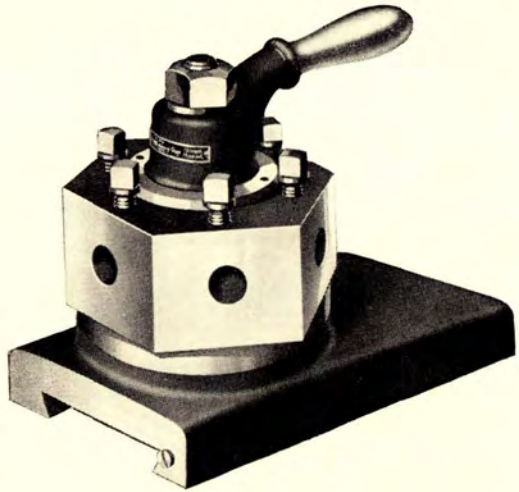
Style S Turret is a carriage turret as shown, and otherwise is same as Style R.

The bodies of these turrets are made from solid steel billets.



STYLE R

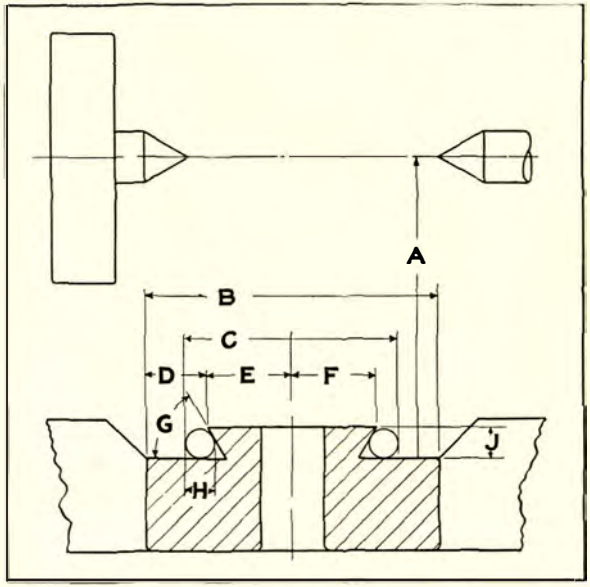
STYLE S



In ordering state style desired, size of lathe, and give dimensions as shown on page 52.

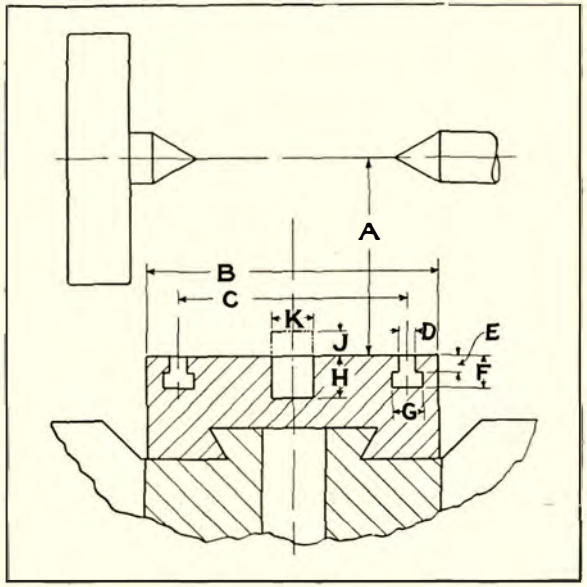
For Lathe Size	Across Flats	Maximum Dia. Hole	Price Style R	Price Style S
12″	6½	1¼	$ 95.00	$105.00
14	6½	1¼	100.00	110.00
16	8	1½	120.00	130.00
18	8	1½	125.00	135.00
20	9	1⅝	140.00	150.00
22	9	1¾	150.00	160.00
24	9	1¾	155.00	165.00

Give these dimensions in ordering style
K, N, or S Turret



Give C and H in thousandths

Give these dimensions in ordering style
J, L, or R Turret

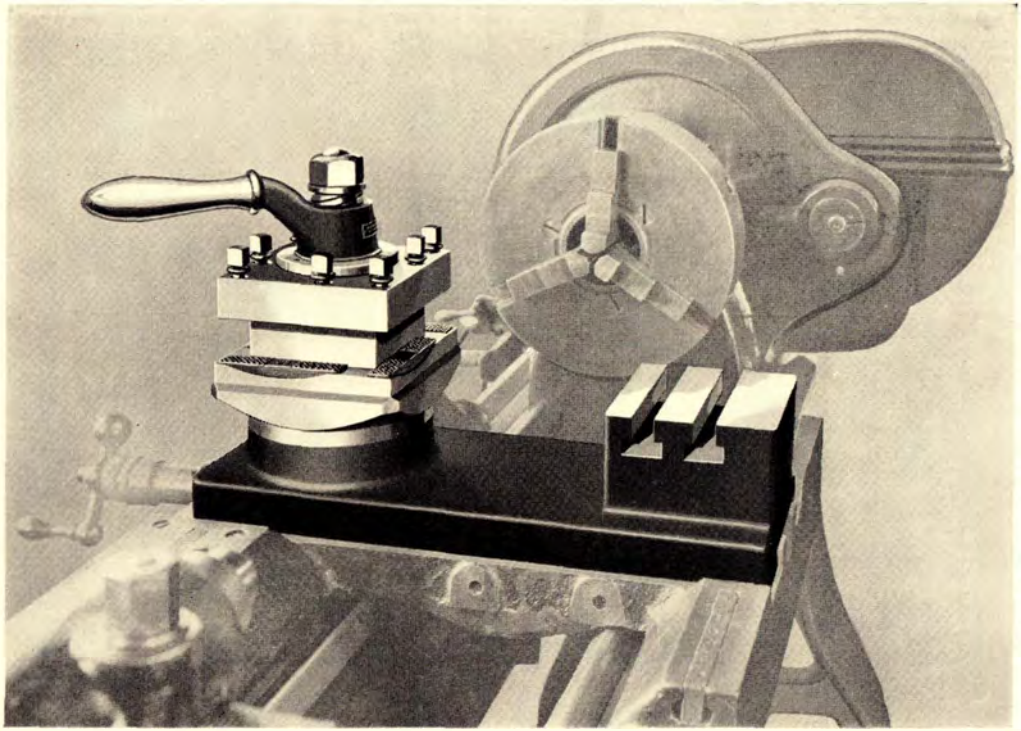


Give K in thousandths, whether pin or hole. If pin give dimension J, and if hole give dimension H.

Style K McCrosky Turret Mounted on Special Slide for Multiple Tool Set-ups

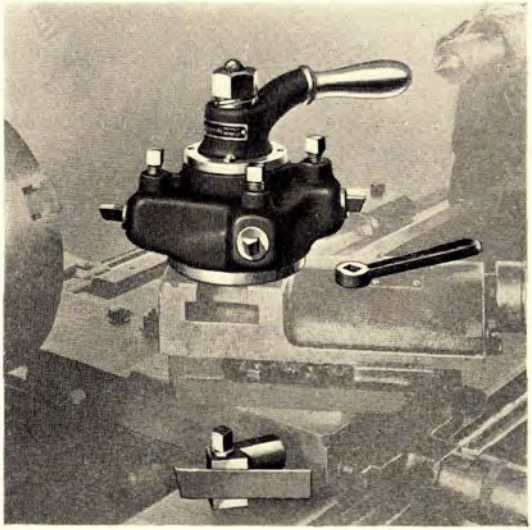
This particular set-up shows how the advantages of McCrosky Turrets can be adapted to special needs. Once the Turret is mounted it becames a vital part of the Lathe. Under whatever circumstances it is used, it saves time, cuts costs, and increases output.

McCrosky Turret Mounted on Special Slide Furnished Special to Order.



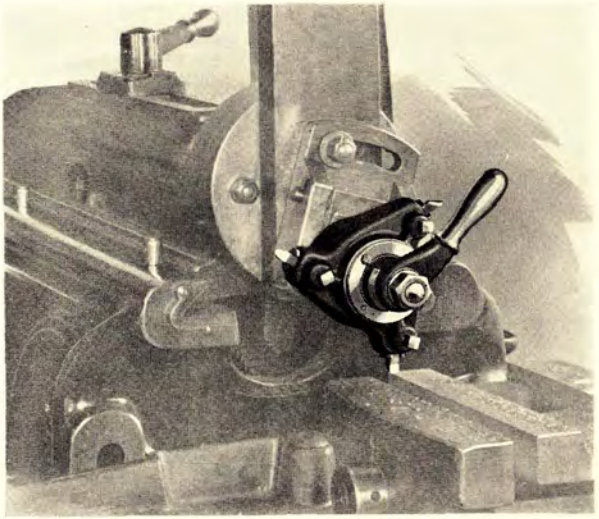
Style F McCROSKY Turret

4-cornered, carries 4 tools



Style G McCROSKY Turret

3-cornered, carries 3 tools



Wrench furnished with either style F or G Turret. Cut-off Tool Holder extra. See price list on next page.

Special Features and Price List—Styles F and G Turrets

These turrets combine the advantage of several ordinary toolholders and a turret besides. **They take ordinary toolholder bits.** The bit bushings may also be removed and boring bars or special tools inserted.

Styles F and G Turrets are attached directly to the compound rest as easily and quickly as the ordinary tool post. On or off in a moment. They have quick rocker adjustment to regulate height of tool, giving same results as regular tool post, and can be used on general work as well as on long runs of duplicate work.

Price List

Order by Size No. and state whether Style F or G is desired. Also give dimensions indicated on drawing on this page.

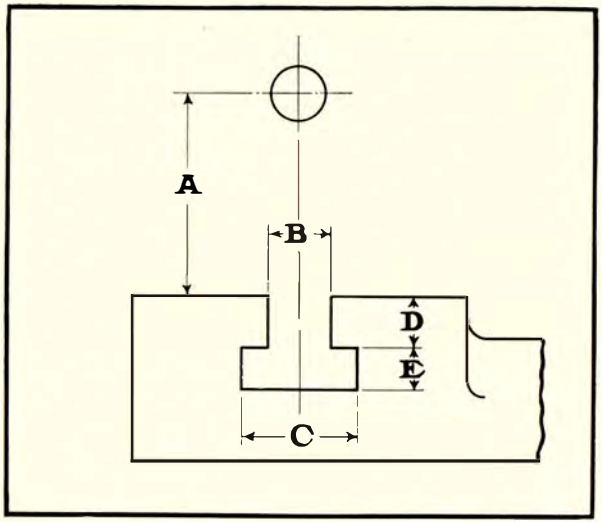
These turrets cannot be furnished for lathes whose center height above compound rest is less than the minimum height given in price list.

Same price applies to both Style F and G.

Size No.	Takes Bits	Minimum Center Height	Price Each (without bits)	Extra for Cut-off tool holder
1	$\frac{5}{16}$" sq.	$1\frac{1}{4}$	$40.00	$3.00
2	$\frac{3}{8}$ sq.	$1\frac{5}{16}$	42.00	3.00
3	$\frac{7}{16}$ sq.	$1\frac{1}{2}$	56.00	4.00
4	$\frac{1}{2}$ sq.	$1\frac{9}{16}$	60.00	4.00

Style G Turrets are equally fine on Shapers and small Planers, and can be fitted up for such machines at a slight additional charge. In ordering specify size turret required, and give dimensions of Clapper, including dimensions of bolt opening.

Send for a Style F or G Turret on 10 days trial. If it does not cut cost and increase output on some jobs, return at our expense. You cannot possibly lose on a transaction of this kind, and YOU MIGHT WIN.



Style M McCROSKY TURRET

This illustration shows the **McCrosky** Turret designed for inside work, such as drilling, boring, reaming, etc. The body of this turret is made from a solid steel billet. **Quickly attached directly to the Compound Rest** same as ordinary tool post. **Indexing mechanism unequaled for simplicity, rigidity and accuracy.** Furnished with four or six holes as desired. Holes are approximately 2″ deep, and are left under size in diameter so they can be bored out on the lathe to insure perfect alignment with the lathe spindle.

In ordering give Size Number, exact vertical distance from top of compound rest to the lathe centers, and width of T slot at both top and bottom. **See dimension drawing on page 55.**

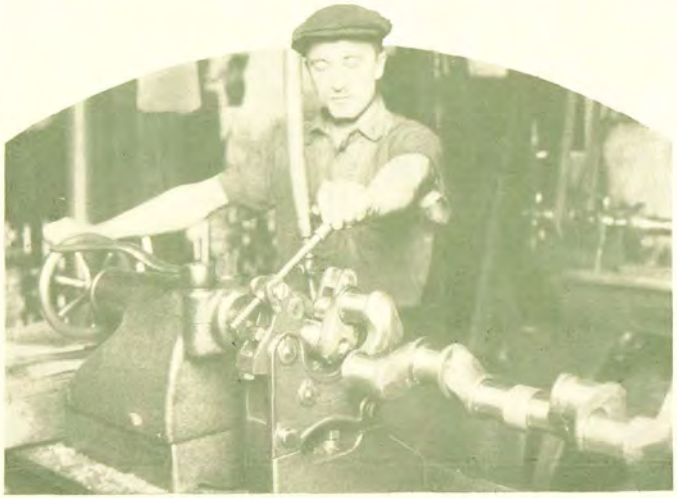
PRICE LIST STYLE M

Size No.	Diam. of Turret	Diam. of Hole	Minimum Center Height	Price Each with Wrench
M-3	4½″	¾ or less	1 1/16	$ 45.00
M-4	5	⅞ or less	1¼	55.00
M-5	6½	1¼ or less	1½	70.00

McCROSKY Turrets are to the Lathe what the WIZARD Chucks and Collets are to the Drill Press. Several follow-up operations may be performed in quick succession with no time lost for set-up or changing tools

McCrosky Self-Centering Steadyrest

PAGES
57 TO 60
INCLUSIVE



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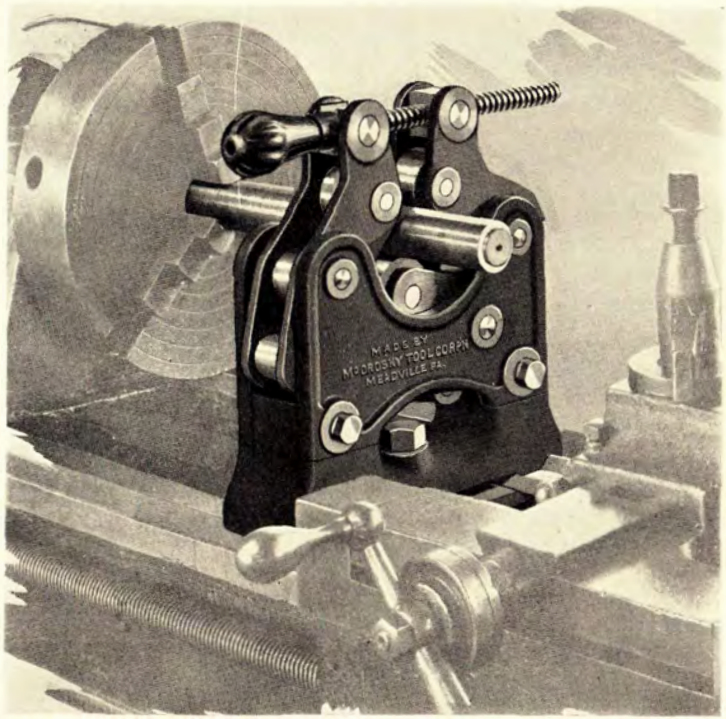
SAVES TIME AND CUTS DOWN SPOILAGE

McCrosky Self-Centering Steadyrest

PATENTED



EASILY AND QUICKLY INSTALLED

SELF-CENTERING FRICTIONLESS

Speed Up Engine Lathe Production—Make Your Lathe a Centering Machine

The McCrosky Steadyrest affords a big advance in lathe and grinder practice. It is especially recommended for all operations to be performed on the end of a piece, such as facing, boring, turning, centering, etc., and practically all operations that could be done on the old style steadyrest. It enables the engine lathe operator to handle in rapid succession many pieces of the same or different diameter. Thus it cuts the cost of production by saving time and increasing output.

The special advantages and features of the McCrosky Steadyrest are briefly outlined as follows:

1. **Self-Centering.** The three rollers which engage the work come instantly and simultaneously toward the center by closing the jaws. They are interacting and universal, and not independent.

2. **Frictionless.** The work is gripped by three hardened rollers mounted on self-lubricating bearings. No contact points to wear off; less power is consumed.

3. **Quick-Acting.** Insert the work, close the jaws until the rollers engage the work; a turn of the tightening screw, and the operation begins. A big saving in time and a big increase in production as compared with the old way.

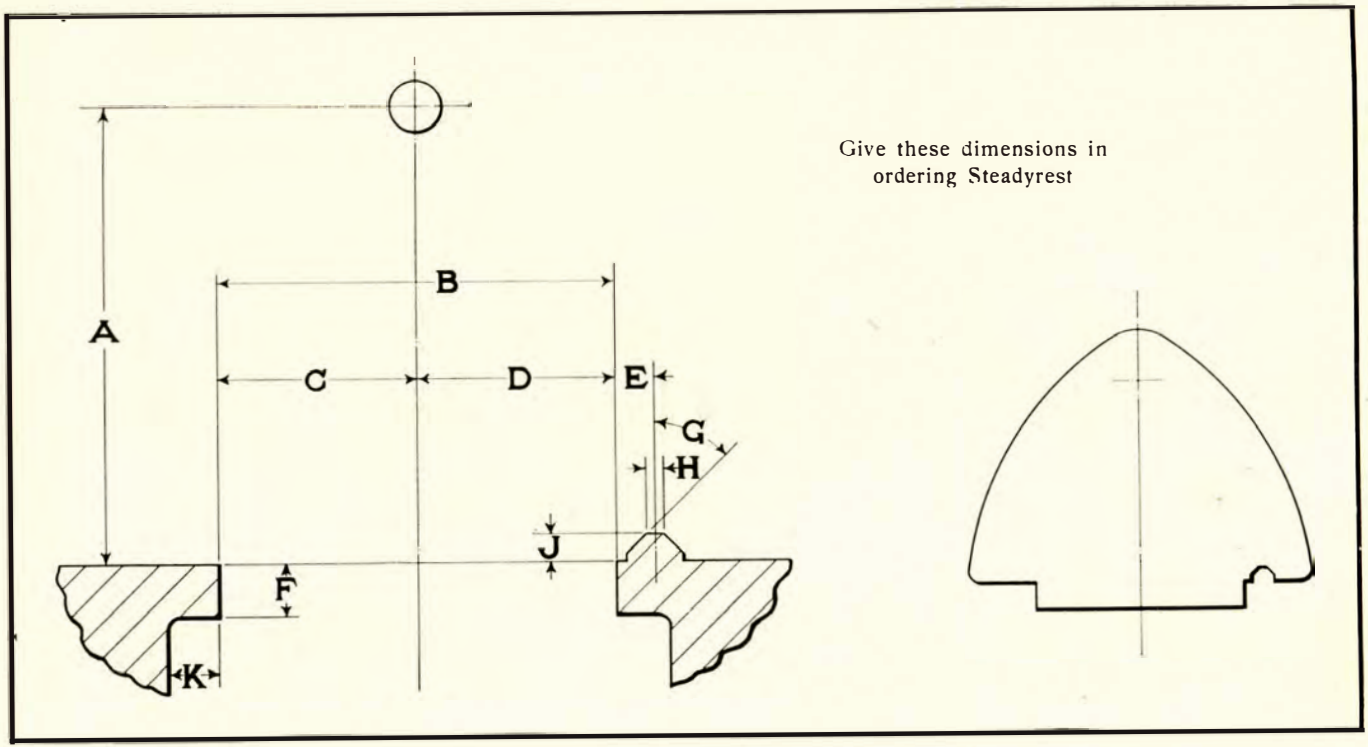
4. **Superior for facing and centering operations.** Before you buy a centering machine, try a McCrosky Steadyrest on one of your surplus lathes. The results will be equally satisfactory, and the investment much smaller. McCrosky Steadyrests have proved particularly effective in centering automobile crankshafts.

5. **Equally valuable for a variety of general work, and for production work in quantities.** Once adjusted to the lathe centers, it remains always adjusted and can be taken off and put on the lathe frequently, in just a few minutes and without readjustments. Handles a large range of diameters, and allows the operator to go from the smallest to the largest diameter of work without any adjustment except a few turns of the tightening screw.

The size listed is designed for the class of work usually done on 12" to 18" lathes. It can also be used on larger lathes if the work is not too heavy. The McCrosky Steadyrest will not injure work which is soft and highly finished, if the rollers are not tightened too much.

In ordering give dimentions indicated on page 60.

SIZE NO.	RANGE	NET WEIGHT	PRICE
1	3/8 to 3 3/4	Approximately 60 lbs.	$100.00



An easy way to furnish these dimension is to make a templet as shown in the right hand sketch, made to fit the ways of the lathe, and with a point to indicate the lathe center line. The Steadyrest base has sufficient adjustment to provide for slight inaccuracies in dimensions or templet.

McCrosky Nevastop Face-Plate and Dogs

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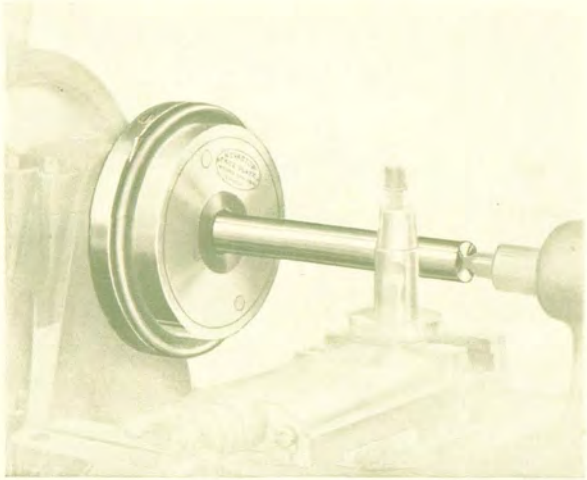

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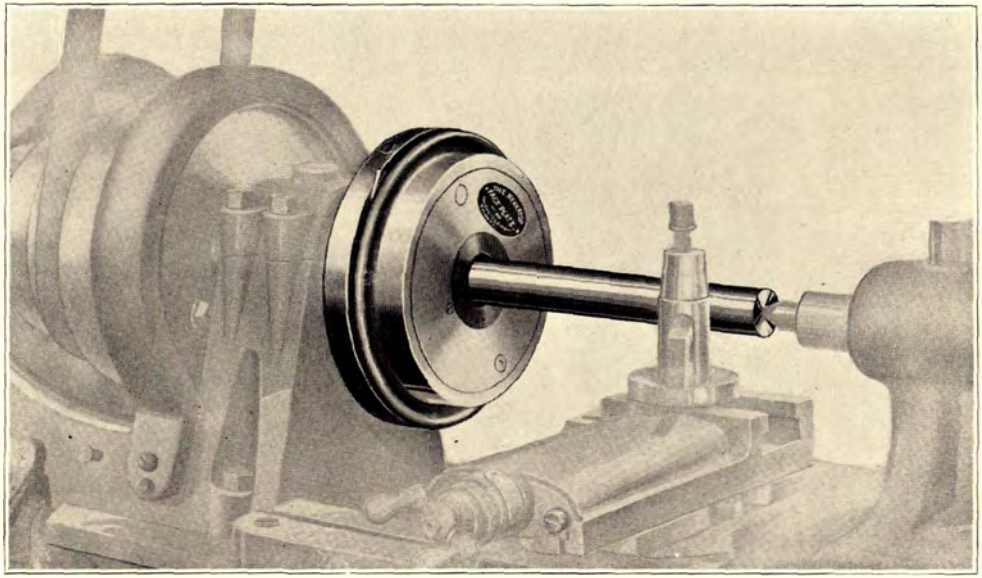
WORK CAN BE CHANGED WITHOUT STOPPING THE LATHE

Nevaslop Combination Face Plate and Dogs

PATENTED



Showing Face Plate in Position on Lathe with Piece of Work in Place

The Nevastop Will Cut Cost of Lathe Work That is Done on Centers

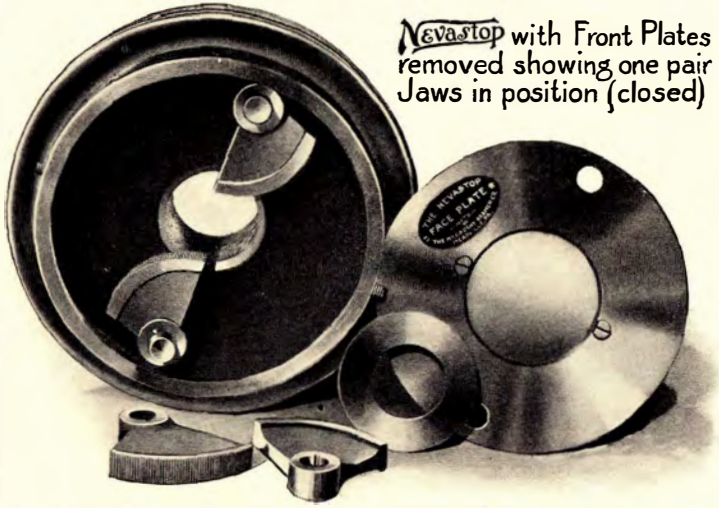
By the Old Way—The workman stops his machine, takes out the work from between centers, loosens the dog set-screw, removes the dog and puts it on another piece of work, tightens the set-screw, puts the work between centers, and then starts the machine. Going through this process sometimes takes as long as the time required to make the cut. It is hard on belts, countershaft, machine and workman, and the revolving set-screw is a constant source of danger to the workman.

By the Nevastop Way the machine never stops. The workman applies a slight resistance to the outside collar of the revolving Nevastop Face-Plate, which opens the cam jaws, and locks them open. He then removes the work, puts in another piece, and by merely touching a little "trip" or trigger on the Face-Plate the dogs are released and allowed to clamp down on the work again. This process is but the work of a moment. No stopping and starting the machine, and no dangerous time-killing set-screw dogs to bother with.

The Nevastop will reduce production time on some lathe work from 10% to 40%, will release easily after the heaviest cuts while machine is running, will not mar the work any more than the set screw of the old style dog, and covers a large range of diameters.

The workman likes the Nevastop because it makes his work easier in spite of the increased output.

Simple and Rugged in Construction.



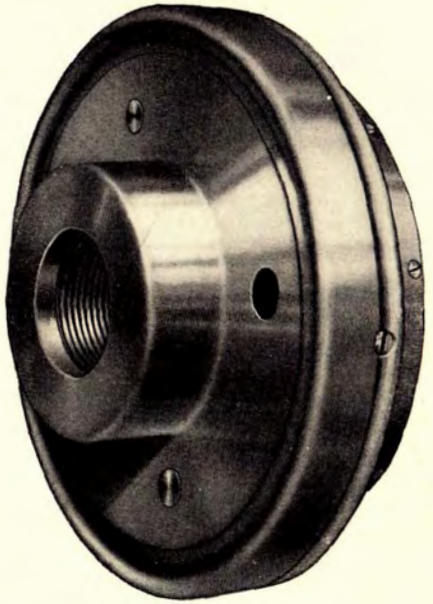
To change from one pair of jaws to another it is only necessary to remove the large front plate as shown. This can be done in a moment by loosening two screws.

Construction of Nevastop Face-Plate

The Nevastop is simple and powerful in construction. All wearing parts are hardened. The jaws are made from special drop-forged chrome-nickel steel, hardened, and will stand up through long, hard service. New Jaws may be ordered promptly from stock.

The jaws in the Nevastop are actuated independently and if the work is not round or symmetrical, or is centered off center, the jaws nevertheless conform to the work, so that both jaws always pull.

The mount or body of the Nevastop is left blank and must be bored out and threaded to fit the lathe spindle by the purchaser the same as an ordinary face-plate or lathe chuck.



Nevastop Sizes and Prices

Both sizes listed are 8⅜" in diameter overall.

In ordering give Size Number, and the diameter of the lathe spindle for which the Nevastop is to be fitted.

The Nevastop is not recommended to be run over 700 RPM.

SIZE NO.	RANGE	PRICE	EXTRA JAWS PER PAIR
1—B C	¼" to 2½	$85.00	Size B—$7.00
1—B C D	¼ to 3¼	95.00	Size C— 6.50
			Size D— 6.00

McCrosky SEARCHLIGHT Lamp Brackets

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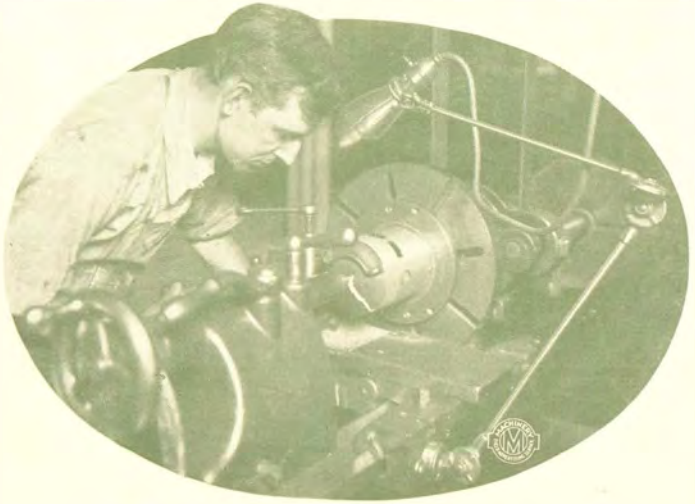
INCLUSIVE



COURTESY MACHINERY

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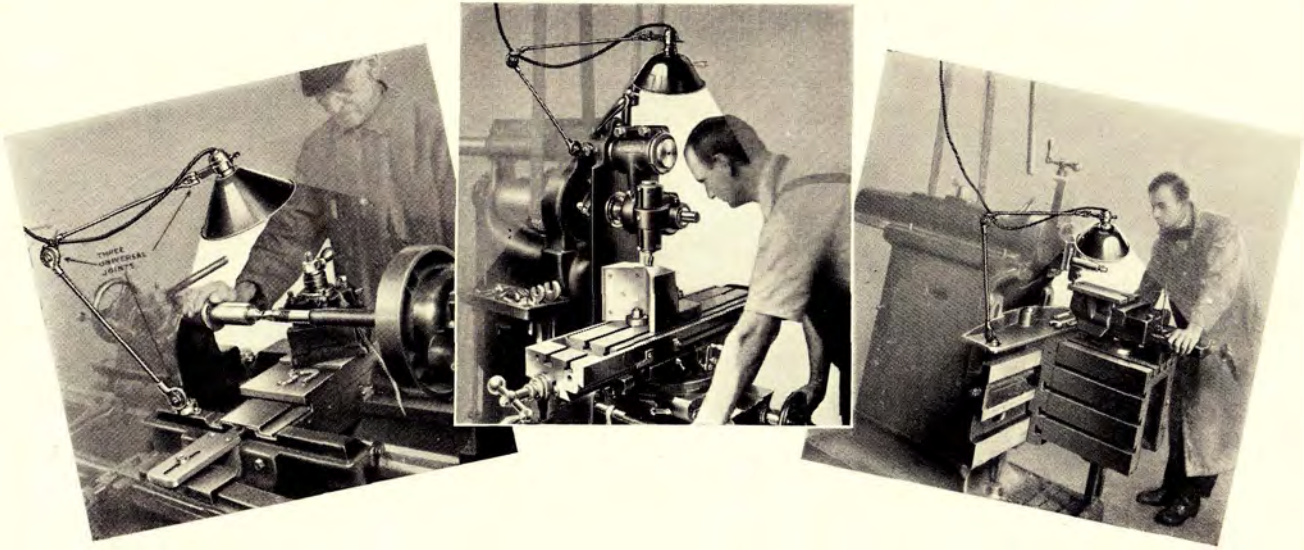
SPOT THE LIGHT WHERE IT IS NEEDED

McCrosky SEARCHLIGHT Lamp Bracket

MORE PRODUCTION
GREATER ACCURACY
LESS GLOBE BREAKAGE

FEWER ACCIDENTS
HAPPIER MEN
TIME AND MONEY SAVED



These illustrations show the adaptability of Style A Searchlight Bracket, the style most generally used. This style is 30″ long, and has blued steel finish.

Price, each.....$3.50

Price does not include lamp, shade, or cord.

Light Where Light Is Needed

"Correct Lighting," says the Electrical World, "helps build industrial eprit de corps and makes happier men; they take more pride in their work and generally do better all around when the light is good."

McCrosky **Searchlight** Lamp Brackets give "correct lighting." They eliminate dark corners. They insure increased production, improved quality of the product, and fewer accidents.

The McCrosky **Searchlight** combines all features required in a device for concentrated lighting. It is completely universal, instantly manipulated, easily installed, simple and rigid in construction, practically indestructible, nicely finished, compact and inexpensive. The time it saves and the globe breakage it prevents more than pays for the original cost. Greater efficiency can be secured for considerably reduced lighting power, effecting a big saving in current.

The light can be instantly moved to any position. No more strings to tie. When necessary the light can be quickly removed from the spring clamp, and as easily replaced.

The universal joint in the **Searchlight** Bracket consists of friction discs so arranged as to give both horizontal and vertical movements. Between each pair of discs is a friction washer, and the amount of friction is regulated by a bolt and locknut which hold the friction uniform at any desired tension. The arms are of solid Cold Drawn steel and the discs are malleable iron machined to a perfect bearing on the friction washers between.

Searchlight Brackets may be attached anywhere by the screws sent with each Bracket. They are adaptable to practically all places and conditions, such as wall, machine, bench, vise, etc.

Style B Searchlight Lamp Bracket

For floor, ceiling, bench, large machines, etc. Length 30 in. exclusive of gas pipe upright, giving total range of 5 ft. Bracket has blued steel finish. Shipped with complete fixtures for attaching to gas pipe standard.

Price, each, without gas pipe standard, $3.50.

Price does not include lamp, shade, or cord.

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Printed in United States

McCrosky
COST CUTTING TOOLS

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IMPORTANT:—When ordering, please furnish us all specifications and information required.

Discount Sheet No. 91

Applying to Catalogue No. 9 and superseding all previous quotations.

McCrosky Super Reamers, pages 7 to 11 inclusive		10%
Fig. 25 Reamers, page 13	Quantities of less than 6	Net
	Quantities of 6 or more of a size	10%
Arbors for Fig. 24 Shell Reamers, page 17		15%
Blades for McCrosky Super Reamers, page 18	Quantities less than 10 sets of a size	15%
	Quantities from 10 to 24 sets of a size	20%
	Quantities of 25 sets or over of a size	25%
McCrosky Super Cylinder Reamers, page 14		Special to order only
Screws and Pins for McCrosky Super Reamers, page 19		10%
Wrenches for McCrosky Super Reamers, page 19		35%
Ideal Reamers, page 21		20%
Blades for 1904 and 1908 model Reamers, page 23		10%
McCrosky Adjustable Hand Reamers, Fig. 40, page 24	With carbon blades	15%
	With H. S. blades	25%
McCrosky Floating Holders, pages 27 and 29		Net
McCrosky Wizard Chucks, Stands, and Collets, pages 35, 36, 37, 39, 40 and 41		10%
McCrosky Wizard Variable Speed and Reversing Attachment, page 43		15%
McCrosky Turrets, pages 48, 50, 51, 55, and 56		10%
McCrosky Steadyrest, page 59		20%
McCrosky Nevastop Face-Plate and Dogs, page 64		Net
McCrosky Searchlight Lamp Brackets, pages 66 and 67	Quantities less than 1 dozen	15%
	Quantities of 1 to 6 dozen	20%
	Quantities of 6 dozen or over	25%

TERMS:—Thirty days net or 2 per cent. for cash within ten days from date of invoice, f. o. b. Meadville, Pa. Freight will be allowed on all freight shipments of 100 lbs. or over within a radius of 500 miles of Meadville. PRICES SUBJECT TO CHANGE WITHOUT NOTICE.

Meadville, Pa.
Effective October 1, 1924.

McCrosky Tool Corporation